



STONY BROOK UNIVERSITY

---

# CENTERS AND INSTITUTES PROJECT 50 FORWARD STRATEGIC PLAN

---



---

*December 1, 2010*

## Table of Contents

---

### Centers and Institutes

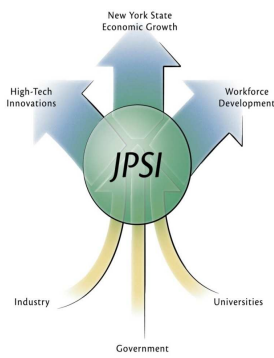
<b>Existing Centers</b>	3	Laufer Center	22
Center for Accelerator Science and Education	4	Mineral Physics Institute	23
Center for Science and Math Education	5	NYCCS: New York Center for Computational Science	24
cDACT: Consortium for Digital Arts, Culture and Technology	6	Pollock-Krasner House	25
CIDER: Consortium for Interdisciplinary Environmental Science	7	SCAN: Social, Cognitive and Neuroscience Center	26
C.N. Yang Institute for Theoretical Physics	8	SWaSI: Solar Water Splitting Simulation Team	27
Communicating Science	9	Staller Center for the Arts	28
Dance, Movement, and Somatic Learning	10	Center for Survey Research	30
Center for Energy Efficient Digital Electronics	11	Wang Center	31
Game Theory	12	Working Class Life	32
Global and Local History	13	<b>Proposed Centers</b>	33
Humanities Institute	14	Applied Econometrics	34
India Studies	15	CCSS: Center for Computational Social Sciences	35
Italian Studies	16	Genomic Regulation	36
Japan Center	17	Center for Hellenic Studies	37
Joint Photon Sciences Institute	18	Center for Innovation In Statistical Learning, Teaching, and Research	38
Korean Studies	19	Center for Interdisciplinary Research on Autism	39
Language Learning and Research Center	20	Molecular and Cellular Communication	40
Latin American and Caribbean Studies	21	Center for Opera Studies and Performance	41
		Center for Political Psychology Research	42

*On the cover: Center for Opera Studies and Performance*

***Project 50 Forward  
Achieving Academic Greatness***



**Interdisciplinary Centers and Institutes**



**Photon Sciences**

Traditional departments are the bedrock of academia. They are the repositories of accumulated knowledge and the vehicle for communicating that knowledge to the next generation. However, much of the most exciting research and scholarship occurs at the edges of traditional disciplines and across disciplinary boundaries. This is increasingly true in the 21<sup>st</sup> century.

This brochure is devoted to Centers and Institutes at Stony Brook. They epitomize the excitement and promise of interdisciplinarity. Not all of the Centers and Institutes that contributed to this document are exclusively within the College of Arts and Sciences. Some cross not only department boundaries within CAS, but the boundaries between colleges and schools and are formally within the Provostial area. However, all include a

large number of CAS faculty members who bring their expertise in the traditional disciplines to these new endeavors.



**Accelerator Science**



**cDACT**

As will be clear from the descriptions in this document, the Centers and Institutes are vehicles for some of the most creative thinking by the SBU faculty. The enthusiasm of the writers for these activities is evident and their visions for the future of their fields are inspiring.

Customary mechanisms for sustaining these centers have been limited, but this has not dimmed the enthusiasm and aspirations. It is hoped that this document will lead to broader recognition and support for the important activities describe here.

This brochure has two parts; the first part describes existing Centers and Institutes that have been formally recognized by the University. Some have been in operation for a long time. The second part is devoted to centers that are newly proposed here.



**Dance, Movement, and Somatic Learning**



**Survey Research**

## Center for Accelerator Science and Education

Accelerators have a far greater role in people's daily lives than most realize. In a recent report entitled "Accelerators for America's Future", the U.S. Department of Energy states ". . .(there) are the tens of thousands of accelerators that are at work every day producing particle beams in hospitals and clinics, in manufacturing plants and industrial laboratories, in ports and printing plants and, literally, on the ships at sea. Adding them all up, some 30,000 particle accelerators operate in the world today in medicine, industry, security and defense and basic science. The market for medical and industrial accelerators currently exceeds \$3.5 billion dollars a year, and it is growing at more than ten percent annually...All the products that are processed, treated or inspected by particle beams have a collective annual value of more than \$500 billion."

### CASE History

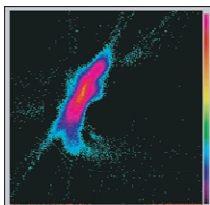
The Center for Accelerator Science and Education (CASE) was formed as a joint institute of **Stony Brook University and Brookhaven National Laboratory (BNL)**. The CASE mission is to educate and train the next generation of accelerator scientists and technologists and to develop a unique program of educational outreach providing young students and secondary school teachers with access to a research accelerator. BNL operates the largest array of accelerators in the US ranging from low energy medical cyclotrons to major facilities such as the **Relativistic Heavy Ion Collider** and the **National Synchrotron Light Source (I & II)**. The storied history of discoveries includes present-day standard technologies such as strong-focusing, the Chasman-Greene lattice, high brightness electron guns, and high gain harmonics. The **Accelerator Test Facility** doubles as a world-class facility for research into new techniques of particle accelerator and a training ground for advanced accelerator science students. The SBU tandem **Van de Graaff accelerator** has been converted to an educational device serving undergraduate and high school students and teachers. In its brief history, CASE has attracted funding for basic research and for education totaling nearly \$2M.



Prominent accelerator scientists trained at Stony Brook include Alex Chao, Ron Ruth, S.Y. Lee, and Rama Calaga, who earned a Stony Brook President's Award for Distinguished Doctoral Students in 2006, and the 2007 American Physical Society / Division of Physics of Beams Doctoral Research Award. Top BNL scientists with adjunct positions at Stony Brook include Ernest Courant, Robert Palmer, Ilan Ben-Zvi and Vladimir Litvinenko. Beyond basic research we have developed an active program of education including WSE187 rotations, hosting the United States Particle Accelerator School, and a unique summer school for high school students and teachers wherein they learned to operate the SBU tandem and perform nuclear reaction experiments.

### The Next Decade

CASE scientists have identified three principle areas of research. **High Gradient Laser Acceleration** uses the energy from an intense laser as a means to produce strong acceleration over very short distances. A recent breakthrough at the ATF facility demonstrated proton acceleration to 1.4 MeV in only 1 mm(!) of acceleration space, exceeding standard acceleration technologies by orders of magnitude. This technique could be scaled to energies appropriate for particle beam cancer therapy, resulting in dramatic cost reductions and thereby widespread availability of life-saving technology. **Coherent electron cooling** is a recent theoretical breakthrough in accelerator physics from CASE scientists and students. A single bunch from a "cold" (uniform) electron beam could be superimposed with a "warm" (non-uniform) ion bunch thereby fingerprinting the non-uniformities of the ion beam. Once amplified by a free-electron laser, these non-uniformities in the electron bunch provide an acceleration lattice which then "cools" ion bunch with orders of magnitude higher efficacy than standard cooling techniques. CASE scientists and students will bring this dream to reality resulting in dramatically higher luminosity for future accelerators. Finally, advances in accelerator technology have resulted in the need and capability of accelerators to produce **continuous power outputs** far in excess of that which can be supplied by the power grid. CASE scientists are developing a unique **Energy Recovery Linac**



(ERL). This device is expected to recover more than 99% of the energy from "spent beam" (beam whose emittance is lost, but whose energy remains), and use this energy as the basis for an accelerator whose output beam power exceeds 1 Giga-Watt.

The US DoE concludes: "Continued U.S. innovation in basic accelerator R&D rests on the next generation of accelerator scientists. The nation must make continued long-range investments to create opportunities for education and training, an effort that requires advanced operating accelerator facilities at national laboratories and increased support for university programs in accelerator science. It is critical to maintain and strengthen national laboratory-university partnerships and to support schools for accelerator science and technology education." CASE serves as a realization of this vision.



# Center for Science+Mathematics Education

In 1996 **LIGASE** (Long Island Group Advancing Science Education) was founded at the University and created a host of innovative programs for the **teaching and learning of science**. LIGASE attracted external funding, rapidly expanded and gained national attention. In 2007, building on this success, the University created the Center for Science and Mathematics Education (CESAME), combining LIGASE with educational components from the Department of Mathematics. CESAME focused on increasing the quality, quantity and diversity of the nation's science and mathematics talent pool, and collaborated with science and mathematics disciplines at every level of the educational spectrum from pre-K to faculty.

To date, we have initiated and collaborated on successful grants with faculty from **Physics, Chemistry, Earth Sciences, Mathematics, Health Sciences, Engineering, SOMAS, Technology and Society, Cold Spring Harbor Laboratories, Brookhaven National Laboratories, as well as local schools and community colleges**. We have created **6 new degree programs**, designed 10 new undergraduate courses and 15 graduate courses for teachers, awarded over \$3 M in fellowships, had over 50,000 regional secondary school students work in our laboratories, and graduated more than **500 math and science teachers with master's degrees**. We have been awarded more than \$20 M in external funding and have received many local, state and national awards.

In the next decade CESAME will continue to lead in science and mathematics education. In collaboration with the Graduate School, we will soon open the **Office of Postdoctoral Affairs** to assist postdoctoral scholars with career development. Our **new Ph.D. in Science Education program** will expand our research capabilities and we are collaborating with the Department of Mathematics to develop a similar offering. Working with Undergraduate Biology and Health Sciences, we are developing undergraduate **laboratory-based courses in cancer biology and molecular modeling**. We will expand our regional and statewide science and math education meetings and plan to host national meetings. We are increasing publications and presentations at national meetings and will accelerate these efforts. We presently work with more than 85% of Long Island school districts, many statewide; we will expand across the country. We will increase our **summer camps** in biology, earth science, mathematics, and engineering, which attract the best high school students from across the nation.

These developments will increase CESAME's effectiveness, visibility and external support. We envision a new building with CESAME on the first two floors and research scientists above. With nationally recognized science and math education programs, we will recruit an individual of international standing to lead this overarching effort, positioning our University at the pinnacle of vision, accomplishment and potential in research and education. The work of CESAME represents a natural evolution for the University and an investment in its future.

**CESAME brings prominent leaders in science and mathematics education to our campus to interact with students at all levels.**



*Nobel laureate Dr. James Watson meets with NYS science teachers as part of our summer project.*



*CESAME and Biochemistry faculty with Dr. Bruce Alberts, Editor of Science*

## cDACT: Consortium for Digital Arts, Culture and Technology

### About the Consortium

Digital technologies are reshaping all aspects of our culture: how we work, learn, play, create, socialize, and participate in civic life. Traditional boundaries—between arts and sciences, practice and theory, creators and observers, local and global—are dissolving, and new forms of creation, observation, knowledge, and distribution are proliferating.



*Climate Shifts: a networked installation utilizing live newscasts*

The Consortium for Digital Arts, Culture and Technology was created specifically to inhabit and explore interstices between disciplines, working across Departmental and College boundaries, with digital tools and techniques as the common interface. This model has brought together **artistic creation, technological development, and scholarly investigation**. cDACT faculty have collaboratively created installations and performances supported by new computer programs, and have written successful grants. Published papers have investigated the **impact of technology on culture**, considered the aesthetics of artworks involving technology, and presented **scientific developments**.

Since its inception in 2007, cDACT has produced three large-scale events in collaboration with other departments, bringing artists, researchers and performers to Stony Brook University. **Sonic Residues, Hybrid Geographies, and the International Computer Music Conference** included gallery shows, concerts, lectures, keynote addresses, panel discussions, poster sessions and paper presentations. cDACT has also developed an innovative interdisciplinary curriculum, including eight new courses for the Digital Arts Minor (DIA), which has expanded in less than three years from 7 to more than 120 students.



*The Last Bourbakian: a multimedia performance using motion & gesture tracking*

### Vision for the future

Perhaps the only certainty about the future is that of technological transformation. Technologies will continue to develop at an ever-accelerating pace, and will inevitably transform our experience and understanding of the world, as well as our interactions with it. From its unique position between departments and colleges, cDACT will continue to foster collaborations both expected and unexpected. We will widen our base of Affiliated Faculty, and pursue connections with other departments, to become a hub for interdisciplinary activity. cDACT is in a position to procure funding from sources as varied as the NEA, NEH, and NSF, and is looking to partner with industry.



*Predictive Attribute Classification: visual discovery and characterization from web collections*

We envision three core areas for performance, creation and research in the near future: **Integrated Media**, with an emphasis on large-scale networked collaborations; **Human Computer Interaction (HCI)**, concentrating on communication with machines through touch and gesture; and the proposed **Data Sensorium**, a facility for interacting with, manipulating, and transcoding large data sets.

In the next decade, cDACT has the potential to become a nationally recognized *Center* for Digital Arts, Culture and Technology, producing cutting-edge research while training students across a wide range of disciplines. Curriculum will expand to include Masters and Doctoral programs, as well as an undergraduate major in Digital Arts, Culture and Technology. Our public offerings will grow from the current biannual conference schedule, to include educational outreach to local school systems, and a residency program for visiting artists, researchers and scholars.

William Wordsworth, in 1800, wrote: "If science should ever create any material revolution, direct or indirect, in our condition, the poet will follow the steps of the man of science and be at his side to aid the transfiguration." cDACT does more than bridge gaps between arts, humanities and sciences – it provides an adaptive and flexible environment, creating an ecology in which true human collaboration, and truly *humane* transfiguration, can flourish.

## CIDER: Consortium for Interdisciplinary Environmental Science

---

### Mission

Conflicts between the need to provide for an expanding human population while also protecting the natural environment from anthropogenic impacts are accelerating rapidly. Such environmental problems are inherently multidimensional and therefore resolved only by interdisciplinary approaches. CIDER integrates and unites the outstanding expertise in **environmental sciences** that exists among many of Stony Brook University's leading departments and institutes with that of **neighboring world-class laboratories and industries in the natural, social, engineering, and health sciences**. By combining strengths across disciplines, CIDER positions Stony Brook to seize emerging opportunities and challenges that stem from the complex interactions between humans and the natural world.



### Overall Objectives

- (1) Unite the outstanding collective **research and teaching** expertise of Stony Brook University's **natural, social, engineering, and health science** programs with that of nearby private and federal laboratories and industry to develop coordinated, team-based research on environmental issues.
- (2) Focus on **complex environmental problems** that have multiple causes and effects and that therefore require multi- and interdisciplinary efforts.
- (3) Promote an approach to **graduate training** that emphasizes in-depth knowledge of a particular discipline combined with a commitment to apply that expertise to broad, inherently multidisciplinary environmental problems that are best tackled by teams of scientists working collaboratively.
- (4) **Educate managers, public officials and the public** about environmental issues and suggest appropriate policies that can be employed to provide solutions, including cost/benefit analyses of various alternatives.

### Justification

There is a wide spectrum of exciting, state-of-the-art research in many areas of environmental science at Stony Brook University. Most environmental issues are multidimensional and must be addressed from an interdisciplinary perspective that includes the natural, social, health, and engineering sciences. With CIDER, more formalized ties and new collaborations are being generated among faculty from various administrative homes but with a common interest in environmental issues. Synergistic interactions among faculty and graduate students of varying disciplines lead to new and innovative approaches to address environmental problems. Stony Brook University is a particularly appropriate place for this consortium due to its unique blend of talent and important geographic considerations. First, there are few universities that have leading **science and social science departments, marine and atmospheric scientists, and a research-oriented medical school all co-located on the same campus**. Further, the close administrative and geographic ties with the **Brookhaven National Laboratory** and **Cold Spring Harbor Laboratory** bring added value and unique facilities to interdisciplinary efforts. The geographic location of Stony Brook is also ideal for such a consortium. Stony Brook has a wide range of **oceanic, coastal, and terrestrial ecosystems** close at hand, and also lies about halfway along a gradient in human population density and environmental degradation (habitat destruction, contamination, etc.). Furthermore, it is also located in a region that is solely dependent upon an aquifer as its sole source of freshwater and that is also inextricably linked to coastal waters for recreational and commercial purposes. Consequently, the studies conducted here could serve as a model for many of the world's cities, particularly those in coastal regions.

---

## C.N. Yang Institute for Theoretical Physics

### About the Center

Long Island has been the site of world-renowned developments in theoretical physics, beginning with the legendary Shelter Island Conference of 1948, which ushered in the modern era of elementary particle physics. At Brookhaven National Laboratory, Chen-Ning Yang and Robert L. Mills discovered nonabelian gauge theories in 1954, the basis of all contemporary theories of fundamental physics. In 1966, the State University of New York took the next step by establishing the **Institute for Theoretical Physics** at its fledgling Stony Brook campus, under the leadership of **C.N. Yang**. This bold initiative helped bring Stony Brook to the world stage of scientific research almost at once, and drew some of the very best young researchers and teachers to a previously unheralded institution. At Yang's retirement in 1999, the Institute proudly took on the name of its founding director, to become the C.N. Yang Institute for Theoretical Physics, the YITP. The Institute consists of permanent faculty, all of whom presently share appointments in the Department of Physics and Astronomy, graduate students, research associates, and a small support staff.

The founders of the Institute identified three broad areas of promise: **elementary particles, gravity and statistical mechanics**, and in each of these areas it has been the site of **historic and enduring contributions to science**. **Supergravity** was discovered here, as the first quantum field theory to realize Einstein's dream of the **unification of gravity with other fundamental forces**. The Institute became a world center for **statistical mechanics**, which explores how **microscopic laws produce our macroscopic world**. The **techniques** for making predictions to **test new fundamental theories** at particle accelerators like the Tevatron, the RHIC and the Large Hadron Collider were developed in large part at the YITP, which is also a world center for the analysis of the masses and transmutations of neutrinos. This work has been widely recognized, and in addition to the many awards bestowed on C.N. Yang himself, YITP faculty have won prestigious international prizes in each of these areas: in elementary particles the Sakurai Prize, in gravity, the Dirac Medal, and in both statistical mechanics and gravity, the Heineman Prize. On campus, Institute faculty and staff regularly organize conferences and host international visitors, and were instrumental in the establishment of the **Simons Center for Geometry and Physics**. Through its hundreds of former students, postdocs and visitors, **the Institute serves as an ambassador for Stony Brook to the world**. Former YITP graduate students and research associates have served as directors for theory programs at international laboratories and as national scientific advisors. They are Fellows of scholarly societies and have won international prizes. They staff the faculties of leading institutions in North and South America, Europe, Asia and Australia.



### Vision for the Future

Scientific themes of the twenty-first century will include both **fundamental and emergent laws in nature, quantum information, and the reconciliation of the minute scales of the cosmos with cosmic history**. Today's frontiers are at the highest accelerator energies and from deep space in cosmic rays, in the most delicate quantum controls, and in emergent phenomena that characterize complex systems, including life. A major donation from the **Simons Foundation** will make possible **new appointments and initiatives** to seize these opportunities, and the Institute will seek to leverage these resources and its **National Science Foundation** funding by forging **new ties on and off the Stony Brook campus**. The Institute's dual traditions of rigorous mathematical investigation and engagement with evolving experimental capabilities provide **shared interests with neighboring departments**, with the Simons Center for Geometry and Physics, and other centers on campus. Institute faculty already work hand-in-hand with experimentalists at the LHC and at the RHIC at Brookhaven National Laboratory, with the Ice Cube experiment at the South Pole Station, with colleagues in the Department of Mathematics, and this is only the beginning.

The growing role of technology and need for scientific literacy in society lends a new urgency to the engagement of leading scientists to **higher education and outreach**. Since the Institute's earliest days, its members have participated fully in **undergraduate and graduate education** through the Department of Physics and Astronomy, and have also successfully mentored aspiring high school students. All of these roles will evolve as our faculty respond to the changing challenges of the educational process, and the Institute will continue to inspire new students with the joys and demands of science. It will also seek to expand its **growing ties to Brookhaven Laboratory in graduate education**, further strengthening the appeal of Stony Brook to the **very best future researchers**. **Physics speaks to all of the sciences and branches of mathematics**. As these lines of communication develop, the world of physics transforms itself, and once limited and narrow specializations grow and overlap within and between the traditional classifications of academic fields. The YITP will be a part of this great and ongoing evolution in the world of thought.



## Center for Communicating Science

Stony Brook's **interdisciplinary Center for Communicating Science** is dedicated to **helping future and current scientists and health professionals learn to communicate more effectively with the public, public officials and the press.** Founded in 2009, it is believed to be the first center in the nation fully devoted to this mission and already has drawn notice, invitations and requests for training from institutions around the nation.

The Center's goal is to offer a range of **instructional opportunities**, including workshops, courses, lectures and mentoring programs, as well as to serve as a **laboratory for innovative curriculum development and instruction, as a home for scholarship, research and assessment, and as a national clearing-house for best practices in communicating science.** It was created in collaboration with Brookhaven National Laboratory and Cold Spring Harbor Laboratory.

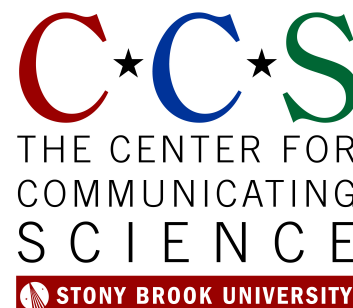
In its first year, the Center held **all-day workshops** for more than 250 participants – from graduate and medical students to senior faculty members and staff scientists -- drawn from Stony Brook's East and West Campuses, the two labs, and more than a dozen other institutions, including Columbia, Cornell, NYU, Princeton, Yale, Memorial Sloan Kettering and Mount Sinai Medical Center. The workshops received high ratings from participants, with many asking for more extended training.

Building on this experience, the Center has developed **credit-bearing courses in Communicating Science** to the Public, which are being offered by the School of Journalism to science graduate students beginning in spring 2011. Available slots were filled within days of the opening of registration. These innovative courses are highly unusual, if not unique, in U.S. higher education and have the potential to become a key differentiator for Stony Brook, an area of strength other research universities cannot match. In recognition of Stony Brook's leadership in this field, the Council of Graduate Schools invited the Center to make a plenary session presentation about communicating science at the Council's annual meeting in December, 2010.

The Center is based in the **School of Journalism**, with a steering committee that includes representatives from four CAS science departments--**Chemistry, Ecology and Evolution, Physics and Astronomy, Biochemistry and Cell Biology**—as well as representatives from the **School of Medicine, the School of Marine and Atmospheric Sciences (SoMAS), the Center for Science and Mathematics Education, the College of Engineering, Brookhaven National Laboratory, and Cold Spring Harbor Laboratory.** It is co-chaired by Howard Schneider, Dean of the School of Journalism, and Dr. Carl Safina, President of the Blue Ocean Institute and an adjunct professor in SoMAS.



*Physicist Brian Greene and actor Alan Alda at the opening of the Center for Communicating*



**Alan Alda**, the actor, writer, director, and host of several PBS science series, is an active member of the Center's national advisory board and a member of the School of Journalism faculty. Along with members of the **Theatre Arts faculty**, he has helped the Center develop ways of using **improvisational theater techniques** to help scientists connect with listeners more directly and responsively. This is one of several approaches the Center is exploring as it works to help scientists become more vivid and engaging communicators.

## Dance, Movement, and Somatic Learning

### About the Center and our Vision

The Center for Dance, Movement and Somatic Learning is an **incubator for creativity, research, education, performance and community discoveries**. It operates as an independent center at Stony Brook University in the College of Arts and Sciences and houses the Dance Program, Dance Minor and proposed Minor in Somatic Learning. The Center offers expansive vision for the disciplines of dance, movement and somatics and **integrates education, art making, research and health**. The award-winning faculty of professional dancers, choreographers, body workers, educators, scholars and somatic therapists represent diverse approaches to thinking and action through their training in classical, contemporary, cultural, educational, theatrical and somatic traditions. Our faculty members work as choreographers, performers, educators, collaborators and/or directors in university, community and professional environments and venues. We trust art making, collaboration and understanding as springboards for new territories of knowing.



We examine how the knowledge and principles represented in dance and the movement arts are poised for meeting future needs. We uncover how the body's interconnectivity leads us to new discussions and **collaborations with health science, technology, business, industry, community and culture**. We practice the dynamic interplay of intention, thought and action and how it can lead us to more productive, inventive, interconnected and purposeful lives through heightened body/mind connections. We value the principles and techniques of the movement arts as transformative partners in a new global, interactive and educational climate. We seek expansive viewpoints of dance and movement arts through film, media, web-based and interactive technology, participating in the "new eco-system from which innovation occurs" (Anderson/TED).



Students on the university campus have taken the opportunity to train and work with faculty members in professional settings throughout the world. In this way we have sprouted wings for our vision by exposing students to the inner workings of professional dance performance through local, national and international venues. Our students have first hand involvement in the global creative process while working along side professional dancers. In order to prepare students as active world citizens, we at The Center are focused on expanding our world presence into the dance arena's of such countries as: Italy, Brazil, Spain, and Jamaica, through dance and somatics based study abroad programs. Our mission is to propel our work forward, freely distributing knowledge and placing our legacy into the hands of future generations so that they may carve out a world that will become more disciplined, intelligent, creative, respectful and ethical than we know it today (Gardner).



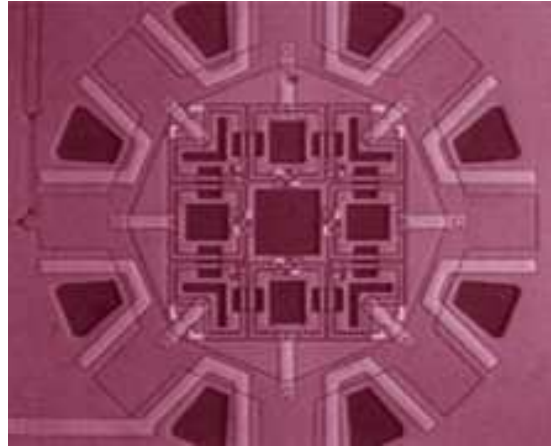
## Center for Energy Efficient Digital Electronics

---

### About the Center

The revolution in **digital data processing** was triggered by the development of semiconductor technologies, and CMOS semiconductors dominate this industry today. In the quest for speed and computing power an ever increasing number of transistors are packed in smaller and smaller volumes. For the most powerful computers energy consumption becomes an issue: the fastest and largest computers today need more than a 1MW of power and the power need of the next generation of supercomputers is extrapolated to 1GW, the capacity of an average nuclear power plant. Ultimately the energy dissipated by the computing process may become the main limiting factor of the further growth in computing power.

Superconducting digital circuitry, based on principles radically different from CMOS, was developed since the 1980's. Stony Brook University became the center for the research on **Single Flux Quantum** (SFQ) devices, where the information is processed in superconducting Josephson junctions. This concept was optimized for speed, and devices based on the **Rapid Single Flux Quantum** (RSFQ) circuitry are currently manufactured by **HYPRES, Inc.**, a company engaged in commercialization of superconducting microelectronics.



SFQ devices optimized for low power consumption were developed more recently in collaboration between SBU and HYPRES. In a recent breakthrough, low dissipation **reversible computing** has been demonstrated at the proof-of-principle level. CEEDiT was established to promote and facilitate further development of this technology.

### Plans for the future

The SFQ devices have a potential to operate at hundred million times less power consumption than the current CMOS circuits. Our first goal is to bring the power dissipation of a simple reversible device below  $k_B T \ln 2$  per bit, the established **theoretical limit for irreversible computation**. The Center will provide framework for collaboration between the Department of **Physics and Astronomy**, the Department of **Computer Science** and Department of **Electrical and Computer Engineering** in Stony Brook, **Brookhaven National Laboratory**, **HYPRES** and other industrial partners based in New York State. These include Vistec Lithography, provider of advanced e-beam lithography systems, Q-Drive and Cryomech, innovative cryocooler and cryopackaging companies, and SuperPower, provider of expertise in materials and systems for high-temperature superconductors. CEEDiT will develop **cross-disciplinary courses** appropriate to engineering and science students, and it will attract undergraduate students, graduate students and post-doctoral associates with research and employment opportunities in this area. The Center will seek **external funding** at the State and Federal level for R&D in SFQ devices and circuit design, and for cryogenic, lithography and other instrumentation.

## Game Theory

### About the Center

Since 1990, the Center (formerly, The Institute for Decision Sciences) has become the **major hub of annual summer activity in game theory in the world**. Every July the Center organizes programs emphasizing game theory, as well as its applications to diverse fields, most prominently **economics**, but also others such as **computer science, evolutionary biology, law, political science, neuro-economics** etc. The basic format is that of a large-scale research-oriented international conference in game theory, held over a week, combined with smaller-scale workshops focused on specialized topics, each of around 3 days duration.

Although the primary objective is to stimulate and disseminate new advances in both theory and applications, our summer program also serves to make conceptual and methodological developments in game theory available to an expanding group of scholars in economics and other disciplines. At the same time, the program provides a venue for these scholars to present their ideas and concerns to game-theorists, enabling both to explore fruitful new areas of collaboration. This interaction is an integral, and very valued, part of our activities.

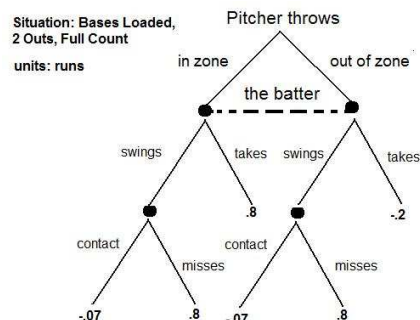
#### Some Salient Facts

- **Seventy-seven conferences and workshops** have been held since 1990.
- **Over 2600 scholars**, from all over the world, have participated in our summer 'festival' since its inception in 1990. Their number has been growing steadily from year to year. This year it stood at well over 200 (which has been the trend over the last 10 years).
- **8 Nobel Laureates** in economics have participated, most of them repeatedly: Arrow, Aumann, Debreu, Maskin, Myerson, Nash, Schelling and Selten. Indeed Maskin and Nash are affiliated members of the Center, and Aumann is a core member.
- Continuous, and growing, support from the **National Science Foundation** since 1993. The last tranche for 2009 – 2011 was over \$ 240,000. The total raised from NSF so far exceeds \$ 1.6 million.
- Involvement of other institutions: funds from **NATO** in 1991, 1994, 1997, and 1999; from **BellCore** in 1991-1993; from the **University of Valencia** in Spain in 1993-1998; the **Center for Rationality, Hebrew University of Jerusalem & Northwestern University** (2007), and organizational affiliation with the Game Theory Society since 2006.

For full details on the activities of the center visit "Archives" in [www.gtcenter.org](http://www.gtcenter.org).

### Vision for the future

Game Theory has become a very interdisciplinary subject with important ramifications in disciplines such as **business administration, computer science, biology, psychology and political science**. This interdisciplinarity has already been reflected in several of our past summer workshops and we are ideally positioned to become a hub for intensifying this interaction. Our vision is to first reach out to the relevant departments on campus and, in collaboration with them, organize **interdisciplinary workshops**. The initiative has to be taken here on campus, eventually **reaching the broader academic community**. This will not only enable direct research collaboration between experts in Stony Brook and their immediate colleagues outside, but will also foster interaction **within** the university across departments, and across faculty and students, not just during the summer but over the whole academic year. The "beneficial externalities" are potentially enormous. Thus, while we certainly intend to nurture and strengthen the mainstream Game Theory International Conference, **the diversification into interdisciplinary workshops is a key ingredient of our future plans**.



## Center for Global & Local History (CGLH)

2003



2009



### About the Center

Founded in the History Department by Wolf Schäfer in 2003, the Center contributes to the ongoing **paradigm shift** from traditional *world history* to new *global history* with local lectures, international conferences, and the publication of two online journals:

*Globality Studies Journal* (GSJ) and  
*Long Island History Journal* (LIHJ).

(The shift from the study of “world civilizations” to past and present processes of globalization is the main difference between world and global history.)

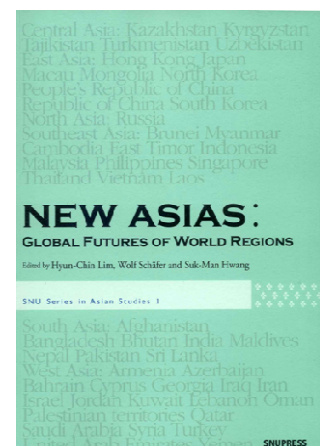
The *Globality Studies Journal* (GSJ) and the *Long Island History Journal* (LIHJ) are open access journals available at [www.stonybrook.edu/globality](http://www.stonybrook.edu/globality) and [www.stonybrook.edu/lihj](http://www.stonybrook.edu/lihj). GSJ was founded in 2006 and LIHJ in 1988. When the latter folded as a paper journal in 2009, the Center for Global History acquired and redesigned it as an online journal. This prompted the rebranding of the Center.

### Vision for the future

CGLH will further the globalization and internationalization of Stony Brook University with cooperative projects in regional studies. A new SUNY Press series – **Pan-gaea Two: Global/Local Studies** (forthcoming, edited by Said Arjomand and Wolf Schäfer) – will help to establish our position in global studies.

The *Globality Studies Journal* will publish established and emerging scholars from all global regions.

The *Long Island History Journal* will become a model for doing local history in the global age.



**New Asias**: Seoul National University Press publication 2010. The Global Futures of World Regions Project was planned by CGLH and co-organized with European and Asian colleagues and institutions.

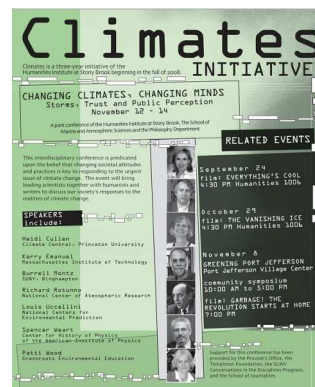
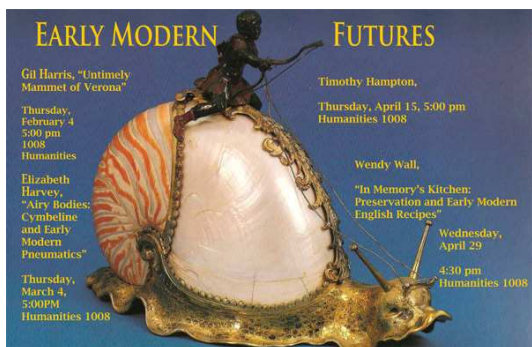
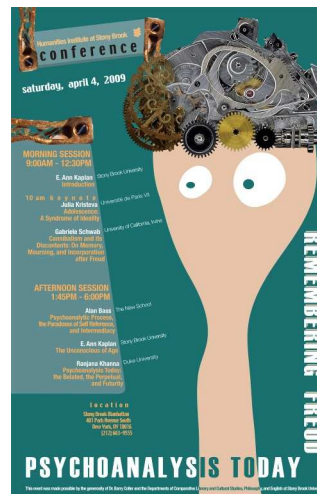
## Humanities Institute at Stony Brook

### About the Institute

Founded in 1987 by then-President John Marburger, the Humanities Institute at Stony Brook, now nearing its twenty-fifth anniversary, has long been a vital center of intellectual and artistic life on the University campus. Our **conferences, lecture series, festivals and other campus-wide projects** have been written up in *The New York Times* and *Newsday* and bring high visibility to the humanities at Stony Brook. Our Undergraduate and Graduate Awards encourage students to develop new interdisciplinary projects. "One of the hallmarks of the Humanities Institute under E. Ann Kaplan's leadership has been its high-profile international collaborations, bringing the very best of the world's scholars in the humanities to Stony Brook University and linking Stony Brook faculty and staff to international research," declared a distinguished External Review Panel. Results of these unique collaborations, such as that with Le Collège International de Philosophie in Paris, have been circulated through our books and other publications. "Despite its small size, HISB is among a handful of American humanities centers with **strong international reputations**," the Review Panel added.

### Vision for the future

In the post-9/11 era, our focus is on interdisciplinary perspectives on memory, emotion and trauma and on how all nations becoming "modern" is changing global economics and politics. We continue to explore the impact of new **digital technologies** on humanities research and teaching as well as implications regarding gender and race. A major new **Climates initiative** (in collaboration with the School of Marine and Atmospheric Sciences and departments across the College of Arts and Sciences) focuses on such topics as **global migration**, the imperative for peoples to change behavior, and the differential impact of a changing environment on minority groups. One component of this initiative is an innovative community outreach project, "**Port Jefferson Village—Go Green**," that has been making a difference in our surrounding community. This project has grown from a small community group discussing environmental concerns to a full-blown activist project. HISB has always fostered both faculty research projects and new curricular initiatives. "The Institute is a cosmopolitan space, a space of community, of dialogue," said one Stony Brook faculty member. In an ambitious new project, we plan to coordinate select graduate courses in diverse disciplines across the College of Arts and Sciences so as to integrate **distinguished guests into linked classroom sessions**. Other plans include facilitating a cross-disciplinary undergraduate major in **Migration Studies** and an **M.A. in Public Humanities**. "I applied to Stony Brook in part because the Humanities Institute was here," said one Stony Brook graduate student. "I couldn't have thought of my graduate student experience or my intellectual growth without the Humanities Institute," said another. We look forward to being at the forefront of new knowledge, as our country (and indeed the world) faces a challenging era.



## Center for India Studies

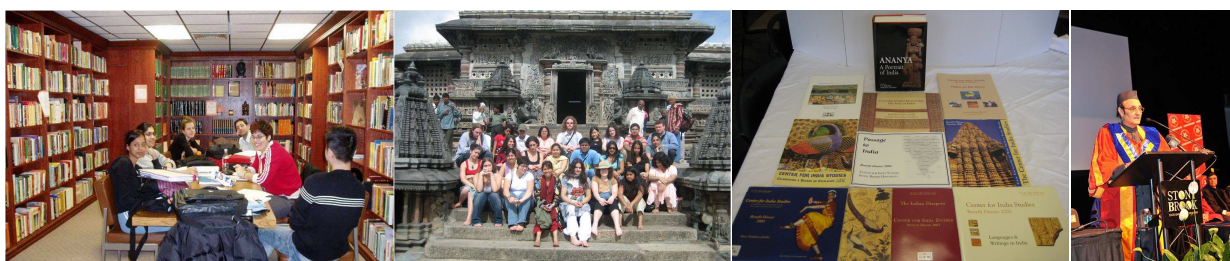
### About the Center

The Center for India Studies aims to promote a better **appreciation of Indian thought, culture, and civilization** by developing expertise and resources for studying India for the benefit of the university and the community. A vibrant example of university-community partnership (est. 1997), the Center has evolved rapidly to become an academic success story, a community asset, and a major national resource on India. The Center supports the College by sponsoring courses on topics, as diverse as **Indian Art, History, Languages, Literatures, Politics, Economics, Foreign Policy, Religion, Mythology, Classical Music, Dace, and Performing Arts**. These courses helped to create and now support the Major and Minor in Asian and Asian American Studies. The Center has brought some of India's most distinguished talent to interact with the campus community, including authors Girish Karnad, Anita Desai; public intellectuals U.R. Anantha Murthy, Raj Mohan Gandhi; economist Jagdish Bhagwati, T.N. Srinivasan; diplomats Karan Singh, Shashi Tharoor; linguists George Cardona, Braj B. Kachru; and many, many others. The Center has organized or co-sponsored India-related seminars, international conferences, exhibits, and other events. Many of India's acclaimed artistes, including maestros Chandra Shekhar, Adyar Lakshmanan, Kamala Narayanan, Arjun Raina, Anoushka Shankar, Khechara, Nrityagram and Bharatanjali Schools of Dance, and many others have performed in the Center's **Performing Arts Series**. The Center organized a concert by the Sarod legend Ustad Amjad Ali Khan in Carnegie Hall. Faculty research involves Hinduism and India's intellectual history, Indian linguistics, literature, and multilingualism, Indian English and World Englishes, International Relations among U.S., India, and China, and Indian culture in the Diaspora. The Center provided matching funds for a U.S. Office of Education grant to develop a model teacher training program for Asian languages. *Ananya: A Portrait of India*, edited by S.N. Sridhar and Nirmal K. Mattoo, has been acclaimed as a major reference volume on Indian civilization. The Center has published **eight annual journals** on themes such as India's Contribution to Civilization and Indian Diaspora. The Center's **India Reference Library** has over 8,000 select volumes. Special collections include the works of Mahatma Gandhi and the personal libraries of linguists William Bright and Braj and Yamuna Kachru. **Public Outreach**, a major focus of the Center, features over 200 presentations for school districts, libraries, museums, civic groups, and corporations as well as policy briefings for candidates for public office. The Center is regularly consulted by major media, such as the *BBC*, *New York Times*, and *Indian Express*, *TV Asia*, and *ITV*. It was the principal consultant for the nationally broadcast **PBS documentary, *Asian Indians in America***. The Center has conducted four Summer Study Abroad program in Bangalore, India, featuring 4 courses, field visits to monuments and development projects, interaction with social activists and thinkers, and varied cultural performances. The Center supports Stony Brook faculty research through membership in funding agencies, cost-sharing of grants and conference travel assistance. **Scholarships**, two annual and one endowed, are awarded to students. Primary support for the Center's wide-ranging activities has come from the Indian American community on Long Island, which has generously donated over a million dollars to date, placing the Center in the frontline of CAS units in the success of advancement efforts. The Center has started an Endowment Fund to create a permanent source of support.

### Vision for the future

The Center has been hailed as a "Jewel in the Crown of Stony Brook," a high quality academic program that is responsive to the aspirations of the campus and the community at large. Next, we will work to institute a graduate program, become a leading think tank on India-related policy issues, create a strong permanent endowment, and establish an endowed Chair in India Studies.

*Left to Right: India Reference Library, Students in Study Abroad Program in India, Center Publications, Honorary Doctorate Conferred on Dr Karan Singh*



## Italian Studies

### About the Center

Founded in 1985 by Professor Mario B. Mignone, The Center for Italian Studies has been carrying out its mission to bring new global and diversity perspectives to Stony Brook's research, curriculum, and community. By organizing a rich variety of events dealing with **Italian culture and the Italian American experience**, the Center not only has enriched the intellectual and artistic life of Campus, it has also built a strong cultural bridge between the University and the surrounding community by becoming a unique and special venue where a significant role in the American cultural scene has been carved.

As an integral part of the university and faithful to its principles, the Center has established a history of extraordinary events (**international conferences, symposia, lectures series, film festivals, exhibits, and other campus-wide projects**) and has attracted to the Campus important Italian and Italian American intellectuals and governmental leaders (Italian Minister of Justice Clemente Mastella, Italian Ambassador to the UN Francesco P. Fulci, Italian Writer and intellectual Umberto Eco, President of the Council of Europe Giovanni Di Stasi). By taking advantage of the excellent human, social, and cultural resources in New York City, the Center has been able to become a strong entity within American culture with the primary goal not just to "promote" Italian culture abroad, but also to encourage interaction and integration between the Italian/European and American cultural tradition.



With our presence and our work we have rendered the New York area more Italian, and we have contributed a more realistic and diverse image of Italian culture from the highest intellectual expressions to popular traditions; **from the 13th Century poets to the new generation of authors; from the debate on Italian-American identity to the role of Italian politics within the European context**. Our success in establishing this intellectual role, was a significant factor in energizing and achieving sufficient support for the **Alfonse D'Amato Chair in Italian and Italian American Studies**, the first endowed Chair in the College of Arts and Sciences at Stony Brook University.

### Vision for the future

The Center is already **a place for dialogue and cultural growth** for people of all backgrounds that wish to share their skills and ideas. We will deepen our core research strengths and extend our interdisciplinary orientation and continue our publication of scholarly books while strengthening the use of Internet and digital publication to reach a global audience.

The growth of the Center depends in large part on the people that enthusiastically participate in our activities and their generous financial support. Over the next decade, we will build upon our success to increase external funding to support scholarly activities and fellowships for doctoral students; and we will actively fund-raise to motivate prospective donors to finance the ongoing development of other outreach programs.





## Japan Center

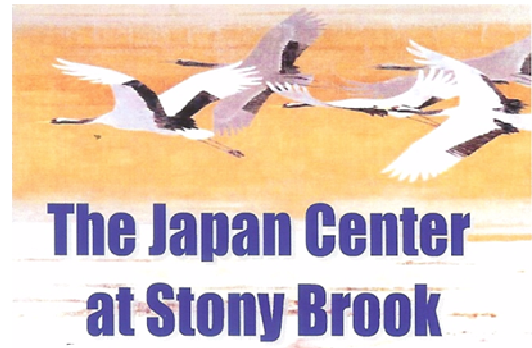
### About the Center

The Japan Center at Stony Brook was established in January 2003 with the mission of creating a **bridge between the university and the local community and promoting education and research in the study of Japan, Japanese culture and society, and the lives of both Japanese and Japanese-Americans**. The Center is operated by university faculty, alumni, and influential individuals in the local community. The Center organizes symposia, lectures, workshops, performances, film festivals, educational events, and outreach programs.

The Japan Center has been organizing **annual essay competition** on Japan in order to promote awareness and understanding of Japan and to help young Americans broaden their international horizons. The essay competition is **sponsored by Canon U.S.A.**, and the Center has received near 1,000 essays from about 150 high schools and colleges on Long Island and New York City. The Center has also been organizing annual **New Year's Gala and Cherry Blossom Festival** ("Sakura Matsuri"), which were accumulatively participated by more than 2,000 local residents. The Center has been offering **Japanese courses for the local community**. More than 200 local residents, young and old, learned the Japanese language and culture for the very first time in their life through this outreach program. The Center has also started its **Lecture Series** by inviting prominent leaders in various disciplines related to Japan.

### Vision for the future

In order to strengthen the national and global stability, promote the welfare of global population, enrich our lives, and brighten the future of our young generations in the current complex global society, America cannot be ignorant of different cultures and different values. The Japan Center is committed to **long-term educational and outreach programs** that directly help Americans access Japanese culture, life style, spirit, education, technology, etc. The Center will continue to expand its ongoing programs and events mentioned above. In addition, the Center will organize **symposia on Asia**, collaborating with other Centers and academic units on campus, asking a number of important questions. What does the phenomenal economic expansion of Asia mean to people in the United States? What can Asia offer the adventurous entrepreneur, the soul-searching individual, the curious traveler? What kind of career and business opportunities can Japan and other Asian countries offer? The Japan Center will continue to grow by **sharing cultures and values across boundaries**.



## Joint Photon Sciences Institute

The Joint Photon Sciences Institute (JPSI) exploits the properties of advanced photon sources to address the nation's most critical scientific, technical and training problems. In particular, JPSI will explore the opportunities offered by the unprecedented brightness of the **National Synchrotron Light Source II (NSLS-II)** under construction (with a budget of over 1 billion dollars) at the nearby **Brookhaven National Laboratory (BNL)** and managed by BNL's Photon Sciences Directorate (PSD).

JPSI will integrate the resources and expertise in BNL and SBU to create and enhance **cutting edge research programs**, strengthen core competency in **photon sciences** and help **bridge the training gap** that often accompanies the commissioning of next generation facilities. SBU's JPSI in collaboration with PSD will attract world-class scientists, including those in training (i.e. graduate students) and new faculty.

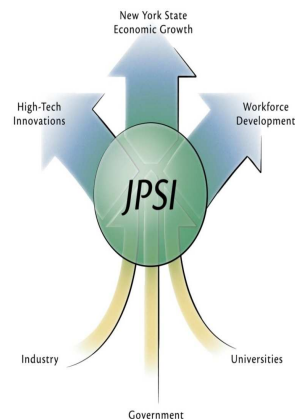
With NSLS-II and other fourth generation photon facilities becoming realities in the coming decades, JPSI's mission will include high risk/high payoff photon-based research that will help build completely new world-class basic research programs. Standing still is not

an option for world-class research institutions in an increasingly competitive environment. The new capabilities provided by these new photon sources are potentially game-changing. They also offer unique opportunities to address a wide range of **emerging global problems with biomedical, societal and industrial importance**, allowing BNL/SBU to leverage the presence of NSLS/NSLS-II and expertise in photon sciences to expand applied research programs.

Every advance in photon source has produced transformative science. To accelerate the impact

of advanced photon sciences, JPSI will put **training for the next generation of researchers** at the center of its core strength. The strategy for the JPSI education and training program is to take full advantage of the expertise of SBU faculties and BNL scientific staff, and the existing highly regarded education programs within SBU/BNL. Some programs are already established. The SBU **Physics Department** offers a graduate level course in synchrotron radiation, jointly taught by a combination of leading synchrotron researchers from SBU and PSD, with the goal of preparing all graduate students who are interested in using synchrotron tools in their thesis research. The SBU **Biochemistry Department/Center for Structural Biology** offers advanced courses in structural biology for students and scientists involved in biomedical research. JPSI plans to work with PSD and other BNL directorates, SBU **Biochemistry, Chemistry, Geosciences and Physics** departments in CAS as well as **College of Engineering** and **School of Medicine**, and a consortium of minority serving institutions to attract minority students to BNL/SBU by expanding upon various educational and outreach programs.

These educational activities are a real partnership between BNL and SBU that provide a unique opportunity for graduate students to become involved in an enterprise that will expand greatly over the next years as the sources of the BNL PSD continue to lead in Photon Science research worldwide. Through these programs, JPSI helps to expand the usage of light source by SBU faculties and students, promote interaction between SBU faculties/students and BNL staff and lead to more students working at BNL, and **attract a more diversified student body for SBU and workforce for BNL.**



## Korean Studies

### About the Center

The Korean studies courses first started to be offered in 1982 at Stony Brook, making it **one of the first academic initiatives in Korean studies in the United States**. The Center for Korean Studies, now nearing its twentieth anniversary, has long been a vital center of intellectual innovations and scholarly exchanges not only for the Stony Brook community but also for the entire U.S. Uniquely poised to be a **hub for research and education in Korean religions and philosophy**, the Center has trained and sponsored many Ph.D. students in Korean religions and Buddhism who are now academic leaders in Korea and the U.S., hosted various **conferences, talks, seminars, and various cultural events**, and worked with the community in various projects to bring Korea to campus. The most prominent area of the Center's dedication is publications. It has published a **dozens of series of manuscripts and research projects in Korean studies**, through which the Center not only helped laying the foundation of the



Korean Studies as a new discipline in the United States, but also located and supported emerging young scholars in Korean studies. The Center

also has **translated several major works in Korean studies into English**. The current project is the manuscript translation of Wonhyo, a 7<sup>th</sup> century Buddhist monk. Many projects at the Center have involved collaboration with universities and scholars in Korea, while others have engaged campus and off-campus communities in teaching and learning about broader global and international society through Korea.

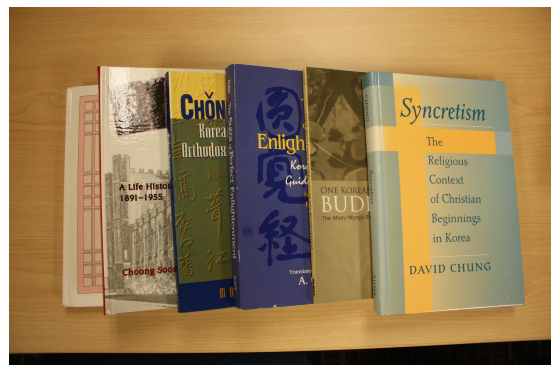


### Vision for the future

The Center for Korean Studies at Stony Brook is a **key resource for education of and academic exchange with Korea** in the United States and it will continue to undertake this role in the future. The Center reaffirms its commitments to three levels of activities:

First, the Center will continue supporting **training and education** of growing number of students who will become future Korean specialists in various fields that this country needs. With the growth of Department of Asian and Asian American Studies, the Center will do its best to **enrich and expand academic curriculums and programs in Program in Korean Studies**.

Second, the Center's commitment to **publication in Korean studies** will also continue, but it will explore more innovative forms of publications in the age of digital technologies and internet publishing. Journal publishing in Korean religions and philosophy and an international conference commemorating the Wonhyo publications are two main projects being actively discussed at the Center.



Lastly, the Center will continuously remain committed to **bringing cultural exchanges with Korea** and awareness thereof to Stony Brook University and broader community it serves, through various forms of cultural events and programming.

## Language Learning and Research Center

### About the Center

The Language Learning and Research Center (LLRC) is where **technology and resources** are available for the **teaching and learning of language, literature, and culture** at Stony Brook University (SBU). The Center has a wide variety of technology for this purpose. It also has a Stony Brook Instructional Network Computing lab open for university usage.

Founded in 1996, the LLRC is **one of the largest language learning centers in New York**. It is the window of the university to the outside world. Almost all new students, international or resident, start their studies at the LLRC through either **ESL or required foreign language classes**. Several graduate assistants also start their teaching in LLRC facilities. It is constantly compared to the other language resource centers that the users have already been.

The Center has **two 60-seat classrooms** that contain every technology used for the last twenty years as well as cutting-edge technology. It has a **36 position mixed Macintosh and Windows computer lab** specialized facility for **oral and aural language** learning. It also has a **mixed technology audiovisual lab** and a seminar room that doubles as a Macintosh based language lab.

The Language Center is committed to quality language, literature and culture instruction and to the development of its users. It caters to almost all the departments on campus, accommodating about 100 sessions of 35 different registrars-managed courses on weekly basis. The center works closely with the **Departments of Linguistics, Hispanic Languages and Literature, Comparative Studies, Asian Studies, Africana Studies, and European Languages, Literatures, and Cultures**.

The LLRC provides daily support to faculty, instructors, and students in effective use of the materials and equipment in the center. It provides **training, technology and equipment support** to not only language and culture classes in the center, but also to other departments like Center for Italian Studies, Intensive English Center and so on. It also collaborates with the Teaching, Learning and Technology department to obtain and maintain innovative instructional materials and equipment that align with national standards. It receives hundreds of ESL students, computer users and foreign language learners everyday.



SINC site



Audio-Video Lab

### Vision for the future

The LLRC envisions engaging in exciting and substantive efforts to change the perceptions and practice of language, literature and culture study, enabling Stony Brook members to better teach and learn and lead in the 21<sup>st</sup> century. Its work to be organized around following areas:

- **Materials:** Providing better teaching and learning materials reflecting current research and best practices.
- **Professional development and outreach:** Organizing regular workshops, conferences, networks and special events; creating richer websites, publishing journals, newsletters, handouts and flyers to provide users with opportunities to stay current with research and developments in their fields.
- **Less commonly caught language initiatives:** Developing and promoting programs for less commonly taught languages.
- **Research:** Providing logistics support to research in teaching methodology, the use of technology, second language acquisition and many other subjects.
- **K-12 initiatives:** Serving as a bridge, connecting K-12 foreign language teachers with the up-to-date information, methods and tools in the field of language teaching through professional development programs.

## Latin American and Caribbean Studies Center

---



### About the Center

Latin American and Caribbean Studies (LACS) was founded in 1995 and already encompasses forty Stony Brook faculty in such diverse fields as Latin American History, Ecology & Evolution, and Hispanic Language & Literatures. In its first decade, LACS brought new **global and diversity perspectives** to Stony Brook's research, curriculum, and its community. For example, LACS won a coveted **Rockefeller Foundation Humanities award** on the topic of "Durable Inequality in Latin America," which brought top thinkers from across the Americas to work on this urgent issue and produced a path-breaking book in inequality studies. The LACS Gallery became a Long Island showcase for Latin American and Latino arts, including the prize-winning show "Unseen America," documentary photography made by Latino day-workers. LACS created a **Tinker Foundation funded Graduate Fieldwork Fellowship** which sends 15 graduate students yearly, from any field, to pursue original summer research in Latin America and Spain. LACS also sponsors an annual student-run graduate conference drawing young scholars from across the hemisphere. LACS hosts a seminar series on the Americas, with more than a dozen speakers, conferences, and events a year. Many involve collaboration with prominent area universities such as NYU and Columbia, while others bring community leaders to campus on key issues facing Latinos today.

### Vision for the future

LACS is poised to become greater New York's **premier public interdisciplinary program on Latin America and the Latino diaspora**. LACS unites three levels of activities: the education of our growing share of Hispanic and Caribbean students, our proximity to New York City—with 2.5 million Latinos a "Latino city" as well as a cultural and financial capital of *las Américas*—and the university's cutting-edge research about Latin America in sciences, social sciences, and the humanities. We are global in scope but also firmly rooted on Long Island, a region with one of the country's fastest growing Latino populations. LACS represents a key resource for our changing community and a force for tolerance, cultural understanding, and pride in Latino heritage and progress. With its hemispheric vision and its local roots, LACS helps prepare New Yorkers—Latino and non-Latino alike—for the global 21st century.

In New York State, public fellowship aid is scarce and we must actively encourage under-represented minorities to attain an excellent Stony Brook education. LACS has already founded two such fellowship programs. The **Partnership Fund for Latino Scholarship**, of Stony Brook faculty and staff, has been helping deserving students for more than a decade, and the **Sánchez Construction Corporation Scholarship** shows how Long Island businesses can help students acquire the skills needed for the workplace of the future. LACS welcomes contributions and new scholarships honoring prominent Latinos, as well as larger developmental opportunities in endowed chairs and research and outreach programs around such topics as Latino migration on Long Island and the challenges for cultural awareness, public services, and human rights.

## Laufer Center

---

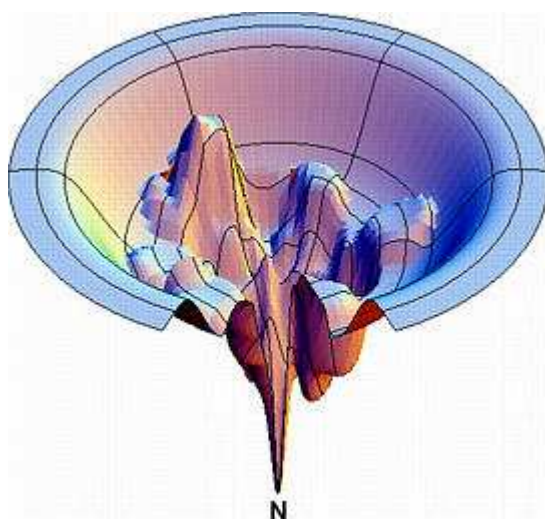
### About the Institute

The Laufer Center engages in research to advance biology and medicine through discoveries in physics, mathematics, and computational science. The Center began operation in October, 2010, supported by a generous gift in memory of Louis and Beatrice Laufer. Research is performed by Center faculty, students, postdoctoral fellows, junior fellows and visiting researchers. The faculty are interdisciplinary, and currently come from SBU Departments of Chemistry, Physics, Applied Mathematics and Statistics, Computer Science, Molecular Genetics and Microbiology, and from Brookhaven National Labs.

To deepen our understanding of biology and to drive advances in biomedicine increasingly requires deeper knowledge of physics and mathematics. For example, new medicines are increasingly being discovered by computer models of the physics of how protein molecules interact with drugs. Also, we do not yet understand the dynamical principles of biological evolution: how does one cell's biological-reaction network evolve to lead to a different type of cell? Biological evolution matters in real life whenever a person develops cancer or whenever "superbug" bacteria or HIV AIDS viruses develop resistance to modern medicines. The basic principles may emerge from advances in statistical physics and network science. In addition, if we understood better the physical forces by which proteins associate to form amyloid plaques, it could help in the search for diagnostics or cures for neurodegenerative diseases, like Parkinson's or Alzheimer's.

### Vision for the future

The Laufer Center has just begun its first year of operation. Laufer Center investigators will perform research at the three-way interface between physical principles, mathematical methods, and biological discovery. We will seek funding through extramural research grants. We will continue our seminar program in computational and systems biology. For students interested in research at this interface, the Laufer Center is developing a graduate program.



*Protein molecules perform life's biological functions. To do this, they must first "fold up" into the right shape. The physics of this folding process is described by a funnel-shaped mathematical function called an energy landscape.*

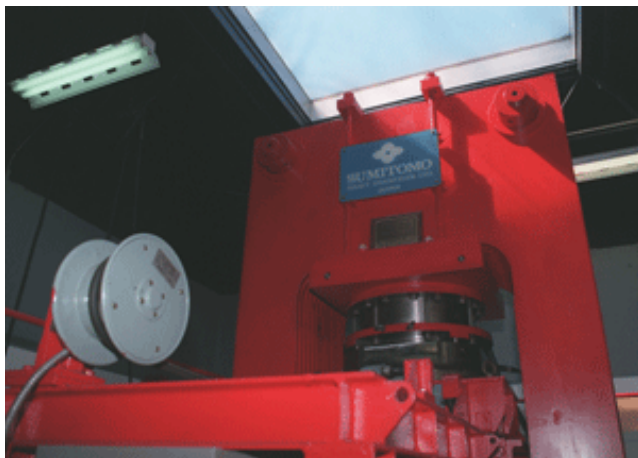
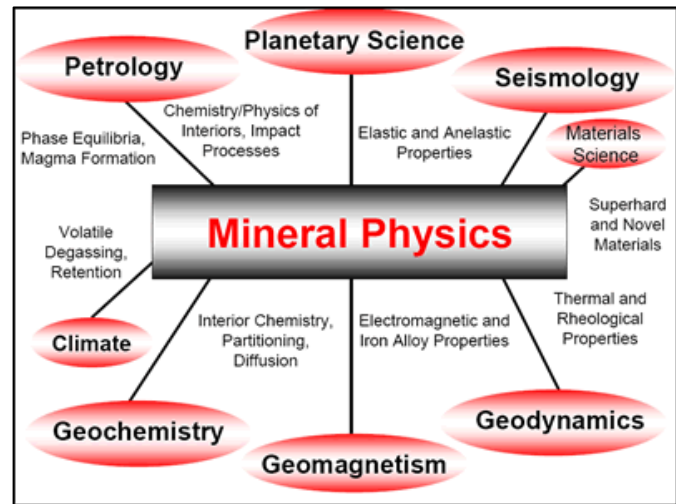
---

## Mineral Physics Institute

### About the Institute

The Mineral Physics Institute (MPI) is a world leading **center of excellence in investigation of the structure and properties of geological and technological materials at extreme pressure and temperature conditions**. The Earth's interior remains one of the frontier research areas in geosciences. One of the core research directions of the MPI is to understand the present state of the **Earth from its surface to its core**, as well as its **evolution through time**. The study of Mineral Physics is central to gaining an understanding of the whole Earth as a system, and is at the heart of several different sub-disciplines within the Earth and Planetary Sciences.

The scientists at the MPI develop and apply experimental and theoretical methods that allow *in situ* investigation of materials at pressure and temperature of the Earth's or planetary Interiors. The methods and tools for high-pressure research developed at the MPI, are transferable and are used for research in emerging science and technology areas, such as the development of new materials for advanced energy systems.



The Mineral Physics Institute provides state-of-the-art experimental capabilities in house and at the National Synchrotron Light Source for its researchers, students and the scientific community. Currently, the MPI operates **three experimental endstations at the National Synchrotron Light Source at Brookhaven National Laboratory** for allowing researchers from around the world to conduct *in situ* high-pressure and high-temperature experiments in both large-volume multi-anvil presses and small-volume diamond anvil cells.

The MPI has since served as the launching pad for **CHI PR, the Center for High Pressure Research, a National Science Foundation Science and Technology Center**, and then **COMPRES (CONsortium for Materials Properties Research in Earth Sciences)** grew out of the CHI PR experience as a community based advocate and supporter of the high pressure research programs at national laboratories.

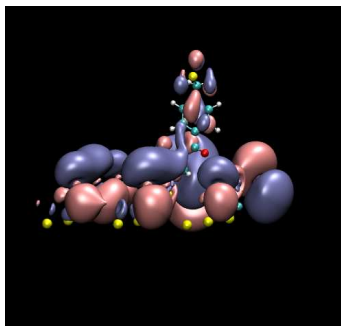
**Education and training of students and young scientists** in the field of high pressure research is a priority at the MPI. The students are integrated into MPI's world leading research teams and are provided with opportunities to experience science as a process of discovery. The students accumulate a unique and highly transferable skill set for successful employment in academia, national laboratories and industry.

## New York Center for Computational Science (NYCCS)

### About the Center

NYCCS provides the intellectual home for **supercomputing at Stony Brook and Brookhaven National Laboratory (BNL)**. NYCCS joins efforts of Stony Brook **CAS, MSRI and CEAS faculty and BNL scientists**. The main goal of NYCCS is advancing scientific discovery in areas related to the missions of the partner institutions, and also in areas related to the broader scientific agenda and economic development of NYS.

The centerpiece of the Center is a **125 Teraflop BlueGene IBM computer (L+P)**, owned by Stony Brook, located at BNL, and jointly managed by these two institutions. This supercomputer is complemented by a cluster of Linux processors about 3TF in power that serves the needs of the program development, and smaller but substantial computational problems. The demand for these facilities is strong, and easily exceeds the resources. The number of users continues to grow, and includes faculty and graduate students in **Physics, Chemistry, and Geophysics, among other CAS areas**. Nationally, there are social scientists with supercomputing agenda (economic and finance models, linguistics, and agent based models of social interactions) as well as computational design and graphics for movies, commercial art and design.



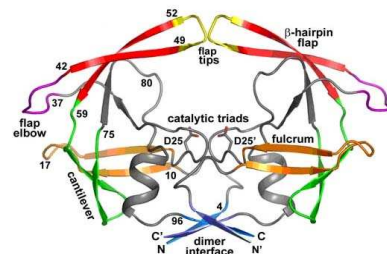
*Electron density distribution for CsSe photovoltaic cell*

**es, and quantum chemistry and predictive drug design.** Via supercomputing, Stony Brook faculty participate in major national projects, such as fusion energy, accelerator design, climate modeling and green energy.

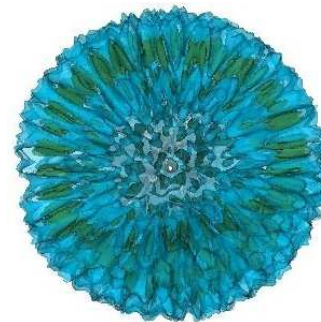
The full potential of supercomputers in the transformation of science can only be realized in combination with state-of-art computational methods and software solutions, and with the knowledge and experience embedded in our faculty members. To foster collaborations and sharing of knowledge across disciplines and subjects, NYCCS has offered a series of well attended **lectures and tutorials**.

### Vision for the future

Future plans are twofold. The first is to work with members of the **Stony Brook community** to support timely **new initiatives**. We organized plans for a computational core for accelerator science at Stony Brook, as an example. The second thrust is to work with **New York firms**, in a similar fashion, to enhance their **economic competitiveness**. We are bringing the power of supercomputing to develop smart electric power grid technology in New York State. Similar plans connect supercomputing and quantitative finance at Stony Brook with New York State finance firms.



*Molecular Dynamics simulation of ligand binding site to HIV virus*



*FronTier simulation of the formation of plasma liner for magnetoinertial fusion*



## Pollock-Krasner House and Study Center

### About the House and Study Center



The former home and studio of internationally renowned abstract expressionist painters **Jackson Pollock and Lee Krasner** is located in East Hampton on eastern Long Island. Its mission is to preserve and interpret the artists' living and working environment, promote scholarship, and encourage creativity. This **National Historic Landmark** property, a project of the Stony Brook Foundation, is open from May through October. SUNY and CUNY students, faculty and staff are admitted free of charge.

Visitors experience the **beautiful natural surroundings** that inspired both artists, tour the house (above) where they lived from 1945 until their deaths, and enter the studios in which they created their most famous action paintings. Wearing special padded slippers, visitors walk across the floor of Pollock's barn studio (right), which is

covered with **vivid colors and lively gestures** that spilled over the edges of his canvases. Visual and performing artists, as well as poets, composers, playwrights, novelists and film makers, have reflected their responses to the property in their own work.

The Study Center presents **exhibitions, lectures, films and conferences**, both in East Hampton and at Stony Brook Manhattan. The Herskovic Essay Prize recognizes innovative scholarship on abstract expressionism. The **research collections**, on the Stony Brook Southampton campus (left), comprise an extensive library and archive devoted to Pollock, Krasner, their contemporaries and the influences upon them, with special attention to the legendary **artists' community of the Hamptons**. Open by appointment year-round, the collections have been used by scholars, students and other researchers from around the world. Details are on the Web site, [www.pkhouse.org](http://www.pkhouse.org).



### Vision for the future

- To integrate with the proposed **Center for the Visual Arts**, expanding opportunities for Stony Brook students and faculty to take advantage of Study Center resources for academic programs and independent research.



- To build an **endowment for operations and programs**, which would permanently stabilize the future of the Pollock-Krasner House and Study Center and allow for the expansion of our programs, including conferences and publications based on Study Center resources, financial support for visiting scholars, and the design and implementation of media-based outreach and interpretive programs for underserved communities.

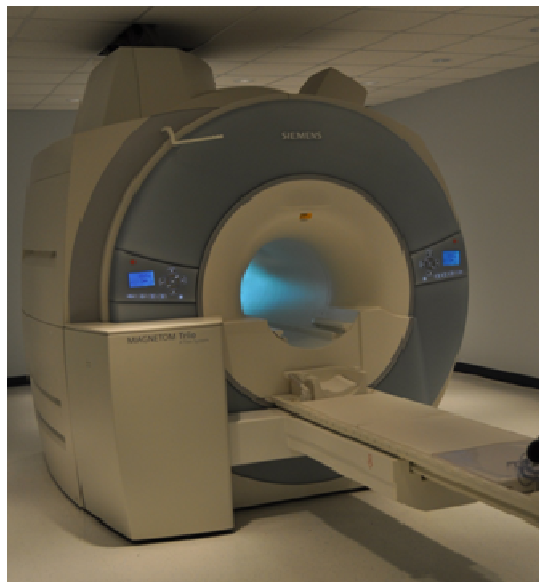
- To play a major role in developing an electronic catalog raisonnée of the work of Jackson Pollock to provide scholars, collectors and students with access to his work.

## Social, Cognitive and Neuroscience (SCAN) Center

---

Director: Turhan Canli, Ph.D.

Staff: Elisabeth Caparelli, Ph.D. (Physicist), Kim Burke (MRI Technician)



The SCAN Center is an **NSF-funded Provostial facility** devoted to studying the structure and function of the human brain. It is equipped with a state-of-the-art Siemens Trio 3 Tesla MRI scanner, installed in the spring of 2009, and housed in its own building located near the Life Sciences Building. Other instruments associated with the SCAN Center include an MR-compatible eye-tracking system, a MR-compatible coil for noninvasive transcranial magnetic stimulation of the brain, and physiological monitoring systems.

**Researchers from West Campus, the Medical School, the School of Engineering, and from Brookhaven National Laboratory** use the scanner to address a number of different fundamental questions in neuroimaging, as illustrated with these examples below.

In **Social Neuroscience**, researchers are studying how individual differences in the experience of loneliness or social stress reflect underlying differences in relevant neural circuits, and how these activation differences can be predicted by a person's unique life history and genetic predispositions. Others investigate how activation of reward circuits through positive social interactions with one's spouse acts to reduce nicotine cravings in heavy smokers. Studies on Autism are in the planning stages.

In **Cognitive Neuroscience**, researchers are investigating the fascinating phenomenon of post-operative cognitive deficits, which affect 20-30% of patients undergoing cardio-pulmonary bypass, major thoracic and vascular procedures, by comparing chemical signatures of metabolic activity in the hippocampus (a key brain region involved in learning and memory) before and after surgery. Others conduct studies of the brain basis of working memory, the control of voluntary behavior, and of impulsive decision-making.

In **Affective Neuroscience**, investigators are conducting a study of generalized anxiety disorder and major depressive disorder. This study will examine neural activity as a function of diagnosis, and will quantify excitatory and inhibitory components of emotional processing, with the goal of articulating better models of emotional processing abnormalities in both anxiety and depression. Other studies address the interaction of attention and emotion, and the neurogenetics of emotion regulation.

Other activities include **Research & Development**, such as the development to conduct parallel recording and noninvasive brain stimulation experimental designs. The SCAN Center is also available for **Teaching & Training** purposes, and supports both funded and non-funded research projects related to its core mission of Social, Cognitive, and Affective Neuroscience. It is available to off-campus researchers, and has been featured in a documentary on the *Discovery Channel*.

Contact: turhan.canli@sunysb.edu

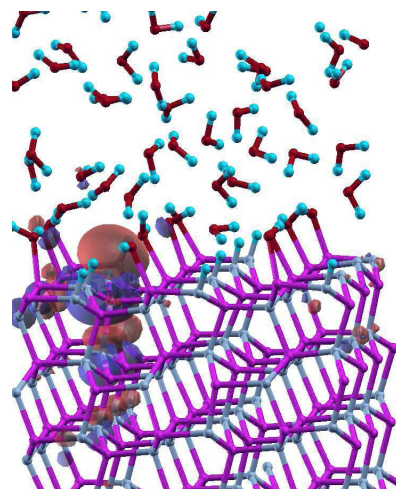
---

## Solar Water Splitting Simulation Team (SWaSI)

### SWaSI – Solar Water Splitting Initiative.

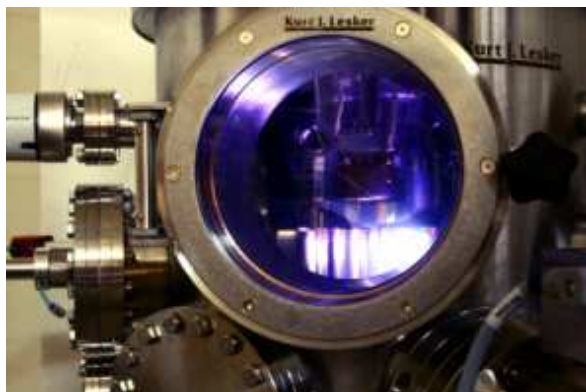
Our goal is a device that will **convert solar energy into carbon free fuels** like  $H_2$  and  $O_2$ , without any additional energy input. This would provide a solution to the limited availability and negative side effects of carbon fuels. Faculty from Stony Brook's departments of **Physics, Chemistry, Geosciences, and Materials Sciences**, teaming with scientists at **Brookhaven National Laboratory**, are doing cutting edge research in this area. The aim is to achieve 10% efficiency for  $H_2$  production from water in an inexpensive, long-lived device.

A semiconductor material is the key component, being both the **solar light absorbing medium and the catalyst**. Once it absorbs solar photons, these are used to initiate electrochemical reactions at the water/semiconductor interface. At an atomic level, few details of the process are understood. It is a challenging scientific problem lying at the **intersection of different disciplines**. Our research so far, done in an on-going close collaboration with Brookhaven National Lab, unraveled many details for a class of semiconductor alloys. Currently these materials are available only as powdered samples. This makes their behavior sufficiently complex as to inhibit a fully detailed understanding.



Our plan for the next stage of this research is to exploit new capabilities for growing and imaging **atomically flat perfect single crystal surfaces**, and also our new capabilities for unbiased prediction of surface and interface structures. Combining new imaging and spectroscopic techniques with new theoretical modeling methods, the microscopic physical and chemical processes should become understandable.

Another part of our plan is to exploit tunable properties of the new flat surfaces, obtained by **growing alternating layers of different crystals**, and by tuning their properties in applied fields. This will give unique new methods to optimize the catalytic chemistry.



## Staller Center for the Arts

**Staller Center for the Arts** is a premier destination on campus for outstanding artistic and cultural events. Staller Center enriches the education of thousands of students and shares the benefits that a major university brings to the surrounding community.

From its beginning in 1978, professional live programs filled the stages of the Fine Arts Center. It was renamed Staller Center for the Arts in 1988 as the result of a generous donation from the Staller family, given in tribute to Max and Mary Staller. Staller Center's funding source has continued to be a mix of public and private donations, and that combination has contributed to its success. Corporate sponsorships along with individual private giving subsidize performance fees and keep ticket prices reasonable. Program support through the Friends of Staller Center, an organization over thirty years old, accepts contributions from patrons, corporations and foundations with the goal of supporting the arts.

### The Arts and Venues at Staller

The 1000-seat Main Stage theatre is the venue for large-scale performances. Main Stage's design incorporates an automated lift and electronic dimming system engineered by George Izenour, a pioneer in theater design. He understood the need for versatility in a concert hall space and was asked by Harvard University to design their stage. Staller Center's Main Stage theater allows for a stage extension that is often needed for operas, orchestras and large scale theatrical productions.



*Wynton Marsalis*

Center is well-known for its film offerings, which include a fall and spring film series ("Films for Campus & Community"). A film pass for twelve films over six Fridays costs \$25 with discounts for Stony Brook students.

**The Stony Brook Film Festival**, in its sixteenth year in 2011, has become a summer event that has gained enthusiastic followers in the film world and in the community. The Stony Brook Film Festival screens new independent film from around the world for ten days in July and brings in filmmakers and actors to represent their films. Over 15,000 tickets were sold in 2010.

State of the art systems are on site for projecting the **Metropolitan Opera in HD** (high definition) performances, which are being shown at Staller Center and in movie theaters across the country. Staller Center was among the first performing arts centers in the country to offer the broadcasts. All twelve full-length



*Momix Dance company*

Recent performers have included the opera star Frederica von Stade, the Lincoln Center Jazz Orchestra with Wynton Marsalis, Patti LuPone, Mandy Patinkin, Emanuel Ax, Yefim Bronfman, Whoopi Goldberg, Bernadette Peters and Billy Joel. Over the years, world-renowned groups have taken the stage including The Alvin Ailey Dance Company, Momix, Martha Graham Dance, Ireland's famed Abbey Theatre, and the Bolshoi Opera, among many others.

**Main Stage** is equipped with one of Long Island's largest movie screens and a projection booth for presenting films. Staller



*Whoopi Goldberg*

## Staller Center for the Arts

When a smaller hall is appropriate for a performance, the 370-seat **Recital Hall**, known for its excellent acoustics, is the venue of choice. Chamber music, jazz performances, folk music and world music are among the many genres heard here. The Emerson String Quartet, winner of nine Grammy awards, is in residence at Stony Brook and performs concerts in the Staller Center Recital Hall.

An initiative to ensure the future of the arts on Long Island focuses on **Arts & Education Outreach**. The Barbara N. Wien Endowment for Arts & Education enables Staller Center to provide free workshops and master classes at the Center and at local schools. Staller Center offers complimentary tickers for young people to attend live performances often associated with the workshops. Outreach workshops are programmed, with artists going into schools or hosting workshops at Staller Center.



Students enjoy "First On Us" at Staller



Parsons Dance Company

**Campus initiatives** such as "First on Us" began as an effort to encourage new students to attend performances, offering a free ticket to the first show a Freshman or transfer student attends at Staller Center. First on Us is gaining traction and the numbers of students taking advantage of the offer has steadily increased. In addition, all Stony Brook students can purchase tickets to Staller shows at half price and are offered \$7 Rush Tickets for available shows on the day of performance.

**The University Art Gallery** hosts art exhibitions and a diverse schedule of fine arts events, all offered for free. A professional artist's work is featured each season. A Faculty Exhibition, an M.F.A. Thesis Exhibition and a Senior Show feature work of Stony Brook University artists. Recent exhibits have featured works of Lee Krasner, Philip Pearlstein and a 2011 exhibit is being planned to showcase the art of Yoko Ono.

**The Department of Music** is an integral part of what makes Staller Center

such a vital place on campus. Over 300 student recitals by music students are open to the public. Concerts by the full Stony Brook Symphony Orchestra as well as professional concerts performed by the department's esteemed artists-in-residence are scheduled throughout the year.

**The Department of Theatre Arts** presents student shows in the center's three "Black Box" theaters in Staller Center, which range from 75-225 seats depending on configuration offering varied performance opportunities.



Billy Joel surrounded by SBU students and staff

Staller Center's mission is to continue to bring the best in the arts to the Stony Brook campus and to make the arts an integral part of every student's education, as well as to provide the highest quality of cultural entertainment and enlightenment for the entire campus and greater community at large.

## Center for Survey Research (CSR)

### About the Center

The **Stony Brook University Center for Survey Research (CSR)** conducts **telephone, web and mail interviews** with people and organizations on Long Island, in New York State, and throughout the United States. The Center provides **high quality research services to academics, university administration, federal, state, and local government agencies, nonprofit organizations, and the news media**. The facility received initial equipment funds from the **National Science Foundation** in July of 1999 and since then has conducted a large number of surveys and recruited subjects for numerous research studies.

As an example of its contribution to local life, the CSR has collected extremely valuable information about Long Island since 2005 through the collection of survey data for the **Long Island Index**. The Long Island Index polls have illuminated many facets of local life but perhaps one of their key contributions has been to document local frustration with the **high cost of housing and taxes**, laying bare Long Islanders' growing desire to move elsewhere. The percentage of people who express a desire to leave Long Island has become part of local lore, prompting local leaders to urge for more affordable housing and initiate programs that will prevent a brain drain of younger residents. Other Long Island Index polls conducted by CSR have examined **attitudes towards local development, downtowns, educational disparities, and government services**. The influence of the Long Island Index polls underscores the powerful role that CSR plays in providing local decision makers with needed information about the views of local residents.



document local frustration with the **high cost of housing and taxes**, laying bare Long Islanders' growing desire to move elsewhere. The percentage of people who express a desire to leave Long Island has become part of local lore, prompting local leaders to urge for more affordable housing and initiate programs that will prevent a brain drain of younger residents. Other Long Island Index polls conducted by CSR have examined **attitudes towards local development, downtowns, educational disparities, and government services**. The influence of the Long Island Index polls underscores the powerful role that CSR plays in providing local decision makers with needed information about the views of local residents.

The CSR provides **assistance and research services to faculty at Stony Brook and throughout the state** who conduct cutting edge research on a variety of issues. Recent projects conducted for faculty include the correlates of **autism, the psychology of self-injury, the health benefits of providing assistance to others, retirement planning and factual knowledge of the Social Security system, health outcomes among African-Americans, behaviors linked to the prevention of swine flu, and recruitment for several lab-based studies of depression**. Research conducted at the CSR has culminated in at least one book, a large number of academic journal articles, and numerous news stories published in the *New York Times*, the *Los Angeles Times*, *USA Today*, and the *Chicago Tribune*, *Newsday* and many other media outlets around the country.

### Vision for the future

In the next several years, the CSR plans to consolidate its position as the **leading university-based Center in the state of New York** for the collection of high-quality complex survey data. We have several planned projects. The first is a regular survey of Long Island **consumer sentiment** that will assist local business and planners to track consumer optimism. Second, we hope to **launch a panel of web and mobile device users** on Long Island and for the state of New York who will respond to surveys on a regular basis. As telephone surveys face declining response rates and the growing absence of cell phones users, researchers need diverse ways to contact members of the public. Our goal is to ensure that **researchers in the areas of health, economics, education, psychology, sociology and political science** have access to the most current resources to conduct the highest quality research on local, state and national issues.



## Wang Center

**The Charles B. Wang Center**, the result of one of the largest private donations in the history of the SUNY system, is among the most beautifully inventive buildings given to any university. The 120,000-square-foot building was officially presented to Stony Brook University by Charles B. Wang on October 22, 2002. Designed by P.H. Tuan, the Center is filled with light and air and graced by gardens and ponds inside and out. With spaces suitable for conferences, performances, exhibitions, and celebrations, the Charles B. Wang Center links scholars and researchers from all over the world, and welcomes many cultural and artistic activities – especially those that reflect the cultures of Asia, Asian America and the Asian Diaspora.



Photo by John Griffin

The Wang Center's mission is to initiate and collaborate with academic departments, student groups, community organizations, cultural institutions, artists and individuals in presenting the public with a multifaceted, intellectually sound, and humane understanding of Asian and Asian American cultures, and their relationship to other cultures.



Photo by Dan Wouffin

**The Charles B. Wang Center is a world-class venue for the presentation and production of Asian and Asian American Cultural Programs.** This programming is the major function of the Office of Asian/American Programs. The Center thus offers diverse and multidisciplinary cultural programming that covers the geographic expanse of the Pacific Rim to Turkey, as well as the dispersal of these peoples in the world. Guest artists and intellectuals share their expertise via performances, exhibitions, presentations, festivals, and film screenings. They also engage with the general public in workshops and discussions regarding their community history, artistic vision and process.

The Wang Center is also a **formidable pedagogical tool.** The Center serves as an extended classroom and learning laboratory for introducing Asian American narratives, themes, political and cultural issues, performers, artists, and filmmakers to our Stony Brook University students, as well as to our local communities. Programming at the Wang Center fits with the mission of the University on diversity, and enriches academic life with co- and extra-curricular programs exploring critical concepts such as race, culture, empowerment, and aesthetics. Wang Center administrative offices also provide training (paid or for degree credit) for

students interested in Asian and Asian American programming curation, audience development, outreach and production.

**Regarded as a jewel of the campus, the Wang Center is a general university facility** used by all legitimate components of the Stony Brook University community (including student groups and academic departments) for their conferences, lectures, fora, and other programs. **The Wang Center is also available as an elegant rental venue for the community at large** for events and functions that are in keeping with the University's mission of academic excellence and diversity.

**Jasmine, the Asian Eatery** and **The J-Club** further enhance the Asian-themed experience at the Wang Center. These eateries combine sophisticated ambience and authentic cuisine. The **Gift Shop** at the Wang Center offers a collection of goods that is unique on campus, and that reflects the University's multicultural diversity.



Photo by Dan Wouffin

With its surprising spaces of traditional beauty fused with a contemporary sensibility, series of interior and exterior pools and terraces, and more than 35,000 square feet of open indoor space, **the center is also a hub for members of the campus community to congregate and spend time studying, chatting, pondering, liaising.**

## Center for Study of Working Class Life

### About the Center

The Center for Study of Working Class Life is dedicated to **exploring the meaning of class in today's world**. Looking at society through the lens of class clarifies many important social questions in new ways – why the rich get richer while the poor get poorer, what attacks on government programs through privatization mean, why the suburbs aren't really a middle class haven, the continuing significance of race and gender, the dynamics of globalization and immigration, how the "family values" debate impacts our lives, and much more.

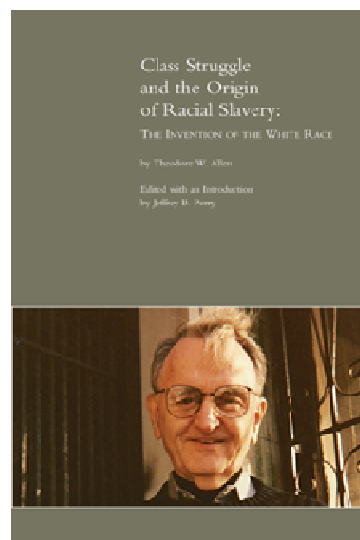
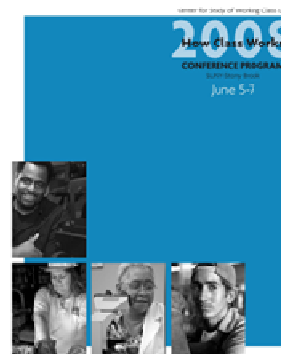
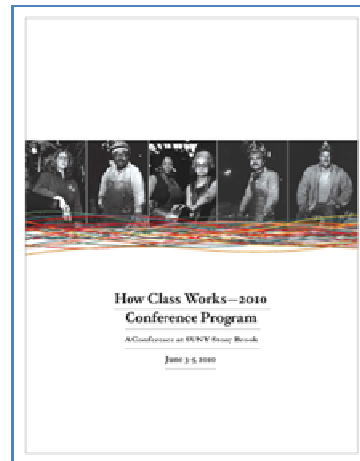
We are an **interdisciplinary effort of faculty and staff** at the State University of New York at Stony Brook, founded in November 1999. The Center studies class mainly with tools of the **social sciences**, but we also pay attention to the **arts and humanities**. Over fifty faculty and professional staff from more than twenty academic departments and programs are affiliated with the Center and have contributed to its programs and publications.

Since its founding, the Center has hosted five **international How Class Works conferences** at Stony Brook, bringing senior scholars and graduate students together with labor and community activists to present findings and engage in discussion that grounds academic work in the lived experience of class and stimulates practitioners to draw conceptual lessons from their experiences. Participants have come from across the United States and Canada, and Europe, Asia, Africa, South America, and Australia and New Zealand. We have completed and released the **policy study *Economic Stimulus and Economically Distressed Workers*** (September 2008). We have produced the DVDs ***Meeting Face to Face: the Iraq-U.S. Labor Solidarity Tour*** (2006) and ***Why Are We in Afghanistan?*** (2009) that have had wide circulation. We have published pamphlets exploring the intersections of race and class, and a study of the academic experience of working class students at Stony Brook. In partnership with the **Workplace Project of immigrant Latino labor** on Long Island and the **Bread and Roses cultural project** of the healthcare workers union 1199/SEIU, we organized the first ***Unseen America*** project in which working people document their lives through their own photography (2000). More information about these and other of the Center's programs can be found on the Center's Website:

<http://www.workingclass.sunysb.edu>

### Vision for the Future

Over the past thirty years, we in the United States have made important progress on issues of race and gender, both intellectually and in our lives, although much remains to be accomplished. Think what the world would be like if we made that kind of progress on issues of *class* in the next thirty years! The Center for Study of Working Class Life is dedicated to helping that process along.

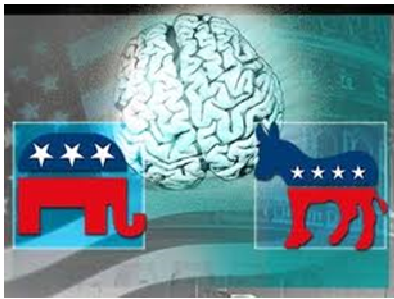


Images by Vockley • Lang



## Proposed Centers

This section describes proposed centers that have not yet received formal approval. A few have been discussed for some time, but most of them emerged in the course of strategic planning this year and resulted from intense discussions across the college. Although they have only recently been proposed as centers, some of the collaborations have already led the to the search for funding. More than any other part of the strategic plan, these proposed centers illustrate best the productive effects of conversations among scholars from different disciplines and demonstrate the excitement that ensues about such proposals. Faculty members come alive when they realize they are not alone in seeing new possibilities; they willingly contribute and collaborate across the customary boundaries of department and discipline when they meet like-minded colleagues across the university.



*Political Psychology*



*Opera Studies*

We hope this section will make it quite clear that the efforts proposed could flourish best with some institutional support. The seed money required to get these centers up and running would be money well spent. The intellectual excitement they create and the contributions they can make to research and educational innovation are impressive. Once the university is committed to such initiatives, outside donors will respect our seriousness and want to contribute to these ventures as well. The proposed centers that follow will be magnets for new faculty, new learning and new supporters--all underscoring the excellence of Stony Brook.



*Interdisciplinary Research on Autism*



*Innovation in Statistical Learning, Literacy, and Research*

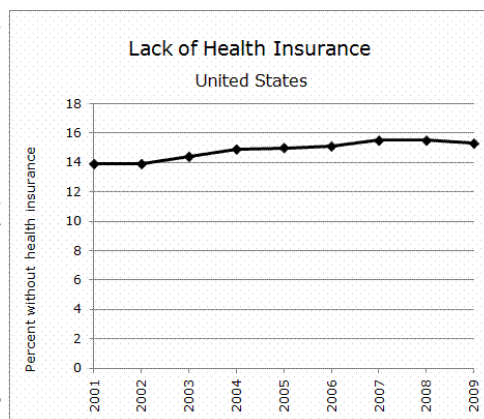
## Center of Applied Econometrics (CAE)

### Department of Economics

Stony Brook University

Economics has traditionally being divided into fields. Some fields use theoretical models which rely heavily on mathematical methods as well as graphical analysis to provide solutions to economic problems; other fields use empirical methods to analyze data generated by agents' decisions and interactions with the economic environment. Stony Brook has become in the last two decades internationally recognized for its outstanding group of researchers in economic theory, epitomized by the excellence of the Center for Game Theory in Economics that the department hosts. However, the department of economics at Stony Brook has also been known for decades for its strengths in **applied economics, with outstanding researchers in the economics of education, economic demography, development economics, the economics of aging, urban economics, social insurance, health economics, and other related fields.** Those researchers have not only published in the

best journals in the profession but also in broadly influential journals in all the sciences like *Science* and *Nature*. They have also obtained grants from private and public sources, and their work has been quoted and cited in the popular media. The faculty in those fields has advised a large majority of the students in the PhD program in Economics, and in the last decade have placed students in excellent research institutions in the U.S. and abroad, as well as in the private sector and in government.



These applied fields have in common the use of econometric methodologies to uncover the key underlying relationships between the decisions of agents and the economic incentives set up by governments. These fields also share many interests with other areas outside economics, such as **business** through the study of firm behavior and competitive environments, **psychology** through the interest in survey research and methodology as well as the study of what drives human behavior and what provides utility to individuals, **public health and medicine** through the analysis of health behavior, health information, and health care, **political science** through the common interest in the analysis of the effect of government policy on the behavior and well-being of individuals, and **applied mathematics and statistics** through the search for the most appropriate methodologies to tackle the problems at hand.

The **Center of Applied Econometrics (CAE)** that we plan to create in the Department of Economics is intended to be a catalyst for the kind of research necessary to bridge the gap within the different fields in economics that use econometric techniques. These techniques can be used to answer some of the key questions of our time, like the effects of aging on our economic systems (including health care and social security), or the effect of urbanization across the globe on the economic well-being of our citizens and our planet. The **CAE** would be a key element to allow our department to become more interdisciplinary using the knowledge and expertise of outstanding researchers in other disciplines.

We envision the **CAE** as a **hub for research and discussion** of the highest and deepest intellectual quality, attracting some of the most outstanding researchers in all disciplines that actively used empirical methods to analyze problems in economics and related disciplines. We would expect to attract considerable funding from private and public institutions to undertake research, organize conferences, support students, as well as support an outstanding series of invited lecturers from around the country and around the world.

In sum, we believe the **CAE** would be have a unique center that would encourage excellence in economics, and also other disciplines that can benefit from the techniques and perspectives of applied economics to study some of the most important and influential questions of our time.

## Center for Computational Social Sciences (CCSS)

---

Stony Brook University has the rare opportunity to develop a cutting-edge Center for Computational Social Science (CCSS). CCSS would draw on **existing interdisciplinary alliances among faculty in the social, health, and computer sciences**. It would position Stony Brook at the forefront of revolutionizing the study of complex social systems through the use of 21<sup>st</sup> century networking technology, with transformative applications in communication and health policy.

### WHAT DO WE MEAN BY "COMPUTATIONAL SOCIAL SCIENCE"?

Computational social science uses new **groundbreaking data collection methods** that have recently become available to the study of interacting social agents. Data collection methods range from smartphone enhancements, such as GPS tracking and smoke detectors, to experiments in natural online settings, to very large electronic time-stamped records of human interaction. Social systems that are studied computationally range from electronic media – which inform us on what makes the news where and when – to the friendship networks of smoking teenagers – which reveal social influence on risky health behavior – to the online collaborations of millions of Wikipedia contributors – which yield important insights into how the peer production of knowledge works.

### OUR MISSION

The primary mission of CCSS is to bridge the gaps between the computer science and engineering experts who produce technology that yield and process massive quantities of data and social and health scientists who would benefit from **real time data to understand human behavior and outcomes**. Technology has made it possible to track human behavior and outcomes through electronic traces that the use of technology has brought to light. The computer scientists develop the technology, collect the data, track trends in the data, and make the data useable. Social scientists develop models of human behavior that can be applied to these data. Ideally CCSS will include among its affiliates individual researchers who span more than one of these areas of expertise. It is not uncommon, for example, for a social scientist to have mastered computational techniques in order to better address research questions of interest. It is also not uncommon for a computer scientist to have considerable knowledge of a field of social scientific inquiry, such as social networks or game theory. And health and social scientists at Stony Brook have expertise to translate findings into policy recommendations.

### RESOURCES/AFFILIATED FACULTY

The following faculty have expressed interest in being among the core group responsible for founding this center and exploring research and funding possibilities. To some extent, their expression of interest is based on existing interdisciplinary research ties.

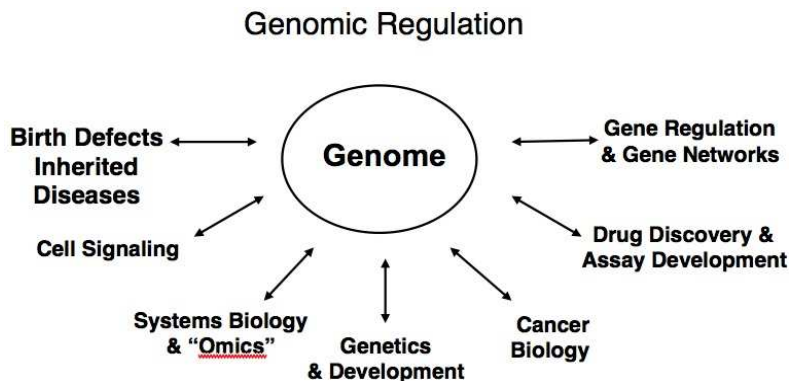
<i><b>Associated Faculty</b></i>	<i><b>Department</b></i>	<i><b>Relevant Expertise</b></i>
Arnout van de Rijt	Sociology	Social Networks
Michael Schwartz	Sociology	Organizations
Ivan Chase	Sociology	Experimental Sociology
Steven Skiena	Computer Science	Combinatorial Algorithms & Data Structures
Jie Gao	Computer Science	Algorithms and Networks
Himanshu Gupta	Computer Science	Database Systems
I.V. Ramakrishnan	Computer Science	Machine Learning & Internet Technologies
Samir Das	Computer Science	Wireless Networking
Jennifer Wong	Computer Science	Sensor Networks
Debra Dwyer	Health Care Policy & Management	Health Economics/Health Policy
Patrick Grim	Philosophy	Computer Modeling & Game Theory
Hugo Benitez-Silva	Economics	Computational Economics/Econometrics
Mark Montgomery	Economics	Social Networks
Oleg Smirnov	Political Science	Agent Based Computational Modeling
Leonie Huddy	Political Science	Survey Research
Matthew Lebo	Political Science	Time Series Methods
Wolf Schaefer	History	Global Studies

---

## Center for Genomic Regulation

The Department of Biochemistry and Cell Biology proposes a center for the study of genomic regulation. A major goal in the realm of human health and translational medicine is to understand how gene mutations and abnormalities affect gene products (RNAs and proteins). We all understand that mutations in genes cause diseases and developmental abnormalities. Learning how such genes are regulated and how gene defects might be corrected is a central pursuit of modern medicine. We propose to grow our core of faculty who work on gene organization, regulation and expression into a center of Excellence in Genomic Regulation.

Research under this initiative would be aimed at discovery of fundamental **molecular and biochemical mechanisms governing gene expression**, as well as research into how abnormal genes and gene regulation affect **cellular dysfunction and disease**. Faculty within this initiative would be studying how any organizational unit of a genome (e.g. chromosome, gene, regulatory element), or gene products (RNA and protein) are acted upon by biochemical, cellular and developmental processes. Fields of research under this umbrella would include any that interface with DNA or chromosome structure, organization, replication, and production and regulation of gene products. Areas of faculty expertise in the Department include signal transduction to the nucleus, chromatin structure, transcription factors, transcriptional mechanisms, post-transcriptional mechanisms (e.g. RNA processing, splicing and transport) and translational regulation. The Genomic Regulation initiative will build upon core strength in this area through new hires in Systems Biology and Structural Biology, which should allow us to define the molecular and cellular basis of defects in genomic regulation, and greatly enhance the value of collaborative research grants among existing and new faculty.



Understanding how genes and other components of prokaryotic or eukaryotic genomes are regulated will foster breakthroughs in basic and translational medicine. For example, small organic molecules are fast becoming fertile ground for discovery of agents that inhibit or activate genes by affecting cell signaling, DNA-binding proteins, gene transcription, chromatin structure and production or translation of mRNA. **Synthesis and screening of small molecules**, particularly ones based upon "rational" (structure-based) design, is a major endeavor of modern drug discovery (as done in ICB&DD). Another example of translational potential is research on how gene mutations are caused by chemicals (e.g. environmental toxins) or mistakes in DNA replication, meiosis or mitosis, and how drugs might be used to correct or compensate for these errors. Genomic Regulation research would also encompass gene therapy, animal models of human genetic diseases (e.g. fly, worm or mouse mutants), and "functional genomics", a research area that investigates the broad phenotypic outcomes resulting from dysfunction of a particular gene or pathway.

As in the case of Molecular and Cellular Communication, the BCB Department is a natural home for this initiative. The Department has a core faculty strength in this area, and our Resource Initiatives in Structural Biology and Systems Biology will expand our abilities to engage in cutting edge Genomic research, as well as foster interactions and collaboration between our own faculty and those of other departments where overlaps in interest and expertise exist. **Cancer, Genetics and Bioinformatics** are key areas of research that President Stanley has identified as a field for significant future investment by Stony Brook. Our Initiative will feed into and synergize with these goals.

## Center for Hellenic Studies

Building on the existing strengths of several Departments and Programs at Stony Brook, a new Center for Hellenic Studies aims to enhance the University's **course offerings in Greek Language (Ancient and Modern), Greek literature, history, philosophy, theater, music, art and culture.** The Center for Hellenic Studies will support curricula and fields leading to baccalaureate and graduate degrees.

The Center for Hellenic Studies is envisioned as a **nucleus of activity for faculty, students and the community at large.** The Center will enable the organization of **visiting lecture programs** involving scholars in Hellenic studies, **seminars, workshops and conferences** promoting Greek language and culture. As well, it will assist faculty and students in publishing scholarly works on Hellenic civilization and culture and related fields. The Center will help establish **ex-**



Lyra player from Lemnos island  
Museum of Works by Theophilos

change programs for students at the undergraduate and graduate levels to strengthen the relevant academic activities both at Stony Brook University and in Greece. It will also enable the organization of **cultural events and academic programs** associated with the rich Hellenic heritage of the community, and publicize the latest discoveries and topics of Hellenic interest to people of both Hellenic and non-Hellenic descent, facilitating cultural comparisons and contrasts.

In addition to the study of Hellenism, the Center for Hellenic Studies will promote the **research of issues of importance to Greek Americans,** including their immigration and the history and evolution of Greek communities in the United States. The Center will be associated with and function under the direction of the Faculty member holding the endowed Chair in Hellenic Studies, who will anchor Center activities.



Grave stele of Hegeso, dated to the end of the 5th century B.C., Archaeological Museum Athens



Wall painting from the apse of the inner sanctum of the church of Aghios Georgios Lathrenou in Naxos, dated in the 13th century.

## Center for Innovation in Statistical Learning, Literacy, and Research

The Strategic Plan for a new cross-campus initiative in statistical innovation entails two main components: the development of an **exciting, multidisciplinary introductory statistical course** to be developed and offered to Stony Brook undergraduate students, and a **multidisciplinary research initiative**.

Our goal for the introductory course is not only to develop a highly innovative and current approach to teaching statistics to Stony Brook majors in the **sciences and social sciences**, but to offer this as a **national model for statistics education** at the introductory college level. Statistics on campus, as in the rest of the country, is typically taught in a fragmented manner in many different departments and courses. They often cover much of the same basic material. Most of them focus on classical statistics, and do not cover the most current statistical practices as part of these courses. These courses are typically concerned with applications to one specific discipline, and yet the

many different disciplines in which statistics is essential share issues and applications in common, and where they don't, may be able to borrow and learn from applications and approaches in other areas. In addition, **students graduating college need to be able to understand, interpret and question statistics not only in their professions, but in a myriad of sources of information in everyday life**. Attaining a degree of statistical literacy and sophistication as "consumers" of information is an invaluable contribution that should be an essential part of an undergraduate education. This course for non-statistics majors would offer this learning opportunity to Stony Brook students.



The development of a new course will depend on close collaboration between people across campus, many of whom have already expressed great interest and enthusiasm for this project. The benefits for undergraduates will be gaining rigorous, current training in the **foundations of basic classic and more recent statistical methods and approaches**, and hands-on experience in applications across a range of disciplines in the sciences and social sciences. These skills will be enormously valuable both for career and graduate school training, and also in basic quantitative and statistical literacy. We will utilize a range of **educational methodologies** for delivering this material in the most effective way, and will use rigorous evaluation methods to quantify the effectiveness of the course and the methods used to implement it.

The research component of this initiative will have a similar focus: what can people using statistical applications in different disciplines on campus contribute to one another? Problems, and methods for solving them, in one field can sometimes provide **novel tools for solving analogous problems in other disciplines**. For some of the researchers involved in this initiative, this has provided opportunities for a major research focus. We would like to develop a group centered around the undergraduate course, with additional interested participants including both faculty and graduate students, to explore the opportunities for such **interdisciplinary exchange and enlightenment**. This may take several different forms: a regular once a month seminar-type meeting, closer collaboration between particular individuals and groups on particular topics, and perhaps the development of a new interdisciplinary research consortium. This could be similar to that of CIDER and other groups on campus, with university funding and a more structured focus involving submission of large **teaching grant proposals, faculty hiring, hosting conferences**, and other initiatives on this multidisciplinary approach to statistical innovation and literacy. We have so far only begun to explore how wide the participation on campus might become, but we expect there to be interest among many different departments.

People who have so far expressed interest in this initiative are:

Jessica Gurevitch, Ecology and Evolution

Stanley Feldman and Leonie Huddy, Political Science

Brenda Anderson and Anne Moyer, Psychology

Nancy Mendell, Applied Mathematics and Statistics

## Center for Interdisciplinary Research on Autism

---

### Background

The need for interdisciplinary translational research on autism is clear. Many faculty members on this campus are already active and highly visible researchers in this field; by combining efforts, further progress will be ensured. These faculty members have been meeting biweekly in a group led by Patricia Whitaker (Psychology) and Lorna Role (Neurobiology and Behavior), the **Neurodevelopmental Disorders Workshop**; collaborative studies have already begun and funding for research is being sought. The synergy of these meetings and these collaborations has led us to propose a more permanent and visible group – **The Center for Interdisciplinary Research on Autism**.

### Research Directions

Although considered to be highly genetic the considerable efforts put into identifying genetic underpinnings of autism have not been conclusive and a consideration of other factors must be included. In the first collaborative effort by the Workshop, The Center for Survey Research and members of the Psychology Department worked to identify **maternal factors which lead to an increased incidence of autism** and found a highly significant effect of maternal endocrine factors related to fertility and stress. Further studies are planned, which will include two members of the School of Marine and Atmospheric studies with expertise in environmental toxicants.

Stony Brook University is also fortunate to have **clinical researchers** who are devoted to the problems of autism, including those at the Cody Center for Autism and Developmental Disabilities who have been active in the Neurodevelopmental Workshop. The Psychology Department has just had the fortune of recruiting a world renowned expert on childhood psychological development – to add to the Department's already excellent reputation in child psychopathology, functional imaging electrophysiological techniques and development of language. Additionally, since factors identified in **clinical and field studies** may be correlative rather than causative, the findings will be translated into **animal models** to test for causation. This will involve a number of faculty with expertise in **both genetic and non-genetic animal models** and social behaviors from the Departments of Psychology and Neurobiology and Behavior, and from Brookhaven National Labs.

The mission of this Center will be to produce a clearer understanding of the environmental genomics of autism, in the hope of increasing prevention and improving treatment.

### Summary

The need for interdisciplinary research on autism is clear. At Stony Brook University, many faculty across the campus have been meeting as part of a Neurodevelopmental Workshop to discuss new ideas and treatments. The synergy of these meetings has led us to propose a more permanent and visible group – **The Center for Interdisciplinary Research on Autism**.

The final outcome of this Center will be to produce a clearer understanding of the environmental genomics of autism, in the hope of increasing prevention and improving treatment.

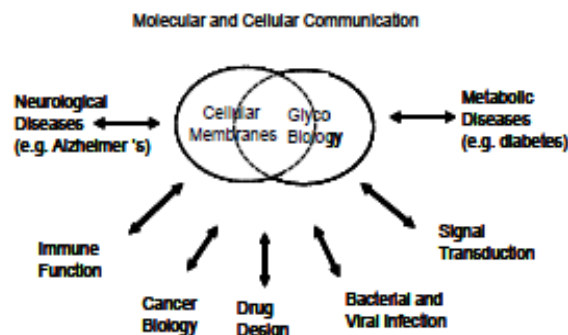


*Social isolation in a mouse missing an oxytocin receptor. (Research by Jaak Panksepp)*

## Molecular and Cellular Communication Science

### About the Center

Membranes form the lipid and protein barriers that surround the cell and its internal organelles. Cell membranes serve at the location where cells communicate with the outside world. Thus a firm understanding of cell membranes and their components is essential to most aspects of biology, as shown in the adjacent diagram. It is not surprising that **membranes are the site of intervention for most therapeutic agents**, and a deeper understanding of the events that are regulated in the complex environment of the membranes is the key to further progress in this regard.



The Department of Biochemistry and Cell Biology propose an initiative to enhance the strengths we have in the areas of **membrane structure/function and glycobiology** (in particular the study of the structure/function of carbohydrates attached to proteins, frequently membrane proteins) by targeting new hires to allow us to more effectively pursue external program project and center funding. We will focus hiring on investigators with skills in Structural Biology and Systems Biology (to strengthen these areas. The majority of drugs in use today target membrane proteins, and the most crucial membrane proteins are glycosylated membrane receptor proteins. These versatile receptors interface between the outer membrane of a cell and its environment and are responsible for the control and integration of information (signals) that enable the cell to mount appropriate responses to various signals. Thus, this initiative will focus on receptor glycoproteins, within the context of studies involving a much wider range of membrane components.

Once the initiative is operational, we will be able to study the full range of membrane glycoprotein structure and function. These studies will include high-resolution structure of the isolated proteins, how they function in the natural cellular environment, how glycosylation affects their function, how the control of their biosynthesis and degradation regulates function, how they impact the global functions of the cell, and how they are affected by potential drug candidates (the latter to be performed in collaboration with the **Institute of Chemical Biology and Drug Design, ICB&DD**). This will give Stony Brook the *unique* ability to perform comprehensive structure/function analysis at a level that will directly impact the development of novel therapeutic approaches. This Center fits well with several of the President's research initiatives, including Cancer, Neurobiology, and Infection/Immunity.

The University and BCB Department are natural homes for this initiative for good reasons. Stony Brook has a particularly strong reputation in membrane biology and glycobiology that can be easily built by recruitment. Furthermore, as noted above, biological membranes and glycobiology form an internationally-recognized focus of research in the BCB Department. Nevertheless, it is important to note that the members of this center will not solely be within the BCB Department. There will be obvious interactions with faculty in this and related areas in other departments where overlaps in interest and expertise exist. Examination of the diagram above shows **obvious interactions with the Molecular Genetics and Microbiology, Pharmacology, Physiology and Biophysics and Pathology Departments**. Issues of drug design and action will lead to strong collaborations with the ICB&DD.



## The Stony Brook Center for Opera Studies and Performance

Since its founding in 1965, the Stony Brook Department of Music has been characterized by an exceptional degree of interaction between the areas of performance and scholarship—an interaction that has few parallels in the United States. The Center for Opera Studies and Performance capitalizes on this widely recognized strength by integrating the curricular and research activities of faculty and students in **musicology and performance** in order to create a unique center of excellence devoted to one of the most popular genres of spectacle in the West.



The music theory and history faculty at Stony Brook has been deeply engaged in the burgeoning field of opera studies by **publishing** cutting-edge research and award-winning editions in prestigious venues, offering frequent and well-attended **seminars to both graduate and undergraduate students** (both majors and non-majors), organizing scholarly meetings such as the 2010 international **conference *Beyond Opera: Staging Theatricality***, and actively collaborating in the department productions.



The Stony Brook Opera program has long presented **operatic productions** at the Staller Center, providing training in opera performance in the Department's distinguished voice program. Stony Brook Opera offers three productions per year: a program of semi-staged opera scenes often including a one-act opera; a chamber opera production in February often featuring a Baroque or contemporary piece; finally, a full production of a major opera, with the Stony Brook Symphony Orchestra, on the main stage of the Staller Center. This last is the high point of the season, attracting audiences from the university, from Long Island, and from the city. The Spring production is organized around a three-year repertoire cycle that includes one Baroque opera, one contemporary opera, and a standard work.

Through the Center for Opera Studies and Performance we envision an expansion of the present activities by: creating a permanent **fund-raising** apparatus in order to offset the increasingly high costs of the productions; interacting with the **world of opera behind Stony Brook** by bringing to campus stage directors, conductors, singers, artists, and scholars to collaborate in our productions through masterclasses, lectures, conferences, and workshops; increasing the **cultural, educational, and publicity activities** related to the productions in order to bring additional audiences on campus from the University and the Long Island area; producing in-house publications that foreground the scholarly work done at Stony Brook in opera studies; and finally, enhancing the **collaboration with other entities on campus** such as the Center for Italian Studies and the Humanities Institute.

**Opera, the hybrid genre par excellence**, has traditionally been a catalyst for creativity in various arts, media, and technologies. Its study is interdisciplinary by definition. Students, faculty, and the community will benefit from an increased presence of opera on the Stony Brook campus. The Center for Opera Studies and Performance will propel this exciting development.



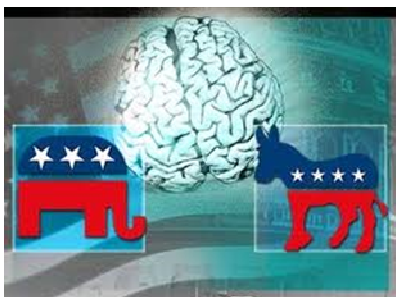
## Center for Political Psychology Research

### Political Psychology Program

Department of Political Science, Stony Brook University

#### *National and International Profile*

The political psychology program within the Department of Political Science at Stony Brook University is arguably one of the best recognized and most influential in its subfield – both in the U.S. and internationally. Political psychology is an exciting subfield of political science and psychology that is developing rapidly in both disciplines and gaining increased international attention. The end of communism and the terrorist events of 9/11 have heightened interest in the **psychology of politics** in myriad ways. From ethnic conflicts that emerged at the end of the cold war and terrorist threats that have dominated world politics since 2001 to the increasingly polarized atmosphere in U.S. politics, scholars have looked increasingly to psychology to help explain political phenomenon. Political psychology at Stony Brook is especially well placed to capitalize on this growing interest in the psychology of politics.



The respected and highly visible faculty members who make up the SBU political psychology group are pioneers in the development of an interdisciplinary approach to the study of politics. Their research has investigated the role of unconscious influence on vote choice, the effects of anxiety on support for anti-terrorism policies, the consequences of partisan ambivalence for political defection, the political effects of Americans' racial attitudes, and the effects of diverse opinion in one's social

network on attitude change. Their research includes **lab-based studies** and **large-scale national opinion surveys**, and is conducted in two major labs located on the Stony Brook campus: the **Laboratory for Political Research** and the **Center for Survey Research**. Over the last several decades, members of the faculty have been awarded impressive levels of funding from the National Science Foundation for their research and continue to attract talented graduate students from around the world. They have also served most recently as editors of the prestigious international journal, *Political Psychology*.

#### *Future Research Directions*

The political psychology group plans to develop research in several **new directions** in the coming years, including the study of the **biological bases of political behavior**. Political scientists and political psychologists have shown growing interest in the genetic, neural, and hormonal origins of political behavior. The biological underpinnings of political behavior is a natural topic to pursue at Stony Brook and the group hopes to attract research support in the next few years to develop a strong subspecialty and excellent research facilities in this area. The political psychology group is actively pursuing interdisciplinary collaborations in psychology, genetics, biology, and medicine to further an understanding of important political phenomena such as political trust and anxiety. One of the exciting projects to emerge out of recent interdisciplinary campus collaborations includes an investigation into the broad **social effects of climate changes**. This project spans six departments (including political science), is **funded by the National Science Foundation**, and involves the developments of a computational model to assess the political, economic, and security effects of abrupt climate change on modern populations.



#### *MA program & Center for Political Psychology Research*

The political psychology group will launch an **expanded MA program** on the psychology of attitude change and the dynamics of public opinion in the fall of 2010, designed for students interested in information campaigns on political, health-related, and environmental issues. There are also plans to launch a Center for Political Psychology Research that would bring together campus researchers in political science, psychology, sociology, and the biological sciences to foster a broad-based approach to the study of political behavior. The Center would host a speaker series, reading groups, and perhaps in the future fund post-doctoral and visiting scholar positions.



**Stony Brook University**

***College of Arts & Sciences***

College of Arts & Sciences  
SUNY-Stony Brook  
E3320 Frank Melville Jr. Memorial Library  
Stony Brook, NY 11794-3391

Phone: 631-632-6976  
Fax: 631-632-6900  
E-mail : [nancy.squires@sunysb.edu](mailto:nancy.squires@sunysb.edu)