Princeton Distinguished Visitor Vargas Llosa wins Nobel Prize in literature

For scientists, supernovae are true superstars — massive explosions of huge, dying stars that shine light on the shape and fate of the universe.

For a brief burst of time, supernovae can radiate more energy than the sun will emit in its lifetime. With the potential energy of 25 hundred trillion nuclear weapons, they can outshine entire galaxies, producing some of the biggest explosions ever seen, and helping track distances across the cosmos.

Now, a Princeton-led team has found a way to make computer simulations of supernovae exploding in three dimensions, which may lead to new scientific insights.

Even though these mammoth explosions have been observed for thousands of years, for the past 50 years researchers have struggled to mimic the step-by-step destructive action on computers. Researchers argue that such simulations, even crude ones, are important, as they can lead to new information about the universe and help address this longstanding problem in astrophysics.

The new 3-D simulations are based on the idea that the collapsing star itself is not sphere-like, but distinctly asymmetrical and affected by a host of instabilities in the volatile mix surrounding its core.

"I think this is a big jump in our understanding of how these things can explode," said Adam Burrows, a professor of astrophysical sciences at Princeton, who led the research. "In principle, if you could go inside the supernovae to their centers, this is what you might see."

Writing in the Sept. 1 issue of the Astrophysical Journal, Burrows — along with first author Jason Nordhaus of Princeton, who led the research — reports that the Princeton team has developed simulations that are beginning to match the massive blow-outs astronomers have witnessed when gigantic stars die.

In the past, simulated explosions represented in one and two dimensions often stalled, leading scientists to conclude that their understanding of the new 3-D simulations like this one are based on the idea that the collapsing star itself is not sphere-like, but distinctly asymmetrical and affected by a host of instabilities.

Continued on page 8

Kitta MacPherson
Tilghman appoints working group on campus social and residential life

President Tilghman has asked a 12-member working group composed of undergraduates, faculty and staff to review Princeton’s goals regarding undergraduate on-campus social and residential life, and to consider several questions that were raised but not fully addressed last year by a task force that focused on relationships between the University and the eating clubs.

In her charge to the new working group, she asked it to examine, among other topics, the following issues that were raised by the task force:

• How can undergraduate social and residential life be enhanced and improved on campus?
• How can the University enrich the social and residential experience in the residential colleges?

Eating Club Task Force issues progress report

The University’s Eating Club Task Force has issued a progress report summarizing steps that have been taken to address the group’s recommendations since the issuance of its report earlier this year. The report can be found at <www.princeton.edu/ectf/reports/progress/>.

Nursery school to open host open house Oct. 20

The University League Nursery School will host an open house from 4 to 5 p.m. Wednesday, Oct. 20, at the school, located at 171 Broadmead.

By the numbers

The University’s comprehensive financial aid plan helps moderate-, middle- and upper-middle-income families afford the cost of a Princeton education. The figures below show the average grant, by yearly income, for students at various financial aid levels in the freshman class of 2014. Tuition, room and board is $44,580 for 2010-11.

Yearly income: Up to $60,000
Average grant: $49,600
What it covers: Full tuition, room and board, and some expenses

Yearly income: $60,000 to $80,000
Average grant: $43,100
What it covers: Full tuition, 71 percent of room and board

Yearly income: $80,000 to $100,000
Average grant: $44,250
What it covers: Full tuition, 47 percent of room and board

Yearly income: $100,000 to $120,000
Average grant: $38,250
What it covers: Full tuition, 18 percent of room and board

Yearly income: $120,000 to $140,000
Average grant: $54,400
What it covers: 95 percent of tuition

Yearly income: $140,000 to $160,000
Average grant: $50,400
What it covers: 83 percent of tuition

Yearly income: $160,000 to $180,000
Average grant: $26,450
What it covers: 72 percent of tuition

Yearly income: $180,000 to $200,000
Average grant: $24,020
What it covers: 62 percent of tuition

Yearly income: $200,000 and above
Average grant: $17,000
What it covers: 46 percent of tuition

Source: Office of Financial Aid

Faculty obituary

Frankly Van Houten, a Princeton geologist whose interest in simple sedimentary environments propelled him for dozens of summers on a scientific odyssey through the American West, Canada, Venezuela, Colombia, Morocco, Tunisia and Egypt, has died at age 96.

Van Houten, a professor emeritus of geological and geophysical sciences who joined the Princeton faculty in 1946, died at home in Bethlehem, N.H., on Aug. 27. His pioneering research on a rock formation known as the Newark basin also made him an authority on the geology of New Jersey.

Known to friends, colleagues and students simply as “Van,” Houten spent much of his career extracting geological history from rock strata, the thin veneer of sediments coating the Earth’s crust. His specialty was sedimentology, the study of history buried in sedimentary rock. The field has long been vital for exploration for oil and, more recently, for metals and nonmetallic resources, and has served as a main source for scientific knowledge about Earth history.

Student Government (USG) and a vice president of the Undergraduate College adviser in Rockefeller College, Van Houten chaired the Eating Club Task Force on Health and Well-Being.

The undergraduate members will be senior Cesar Dovers, a residential college adviser in Rockefeller College, vice president of the Black Box Auditorium Dance Club and events chair at Charter Club; senior Samuel Dorison, vice president of the Undergraduate Student Government (USG) and a former chair of the Whittman College Council; junior Justin Attenberg, a member of the Eating Club Task Force; sophomore Cameron Hough, junior coordinator of the Leadership and Mentoring Program at the Falls Center and former social chair of the class of 2015; and senior Jordan Manigle, chair of the USG Projects Board.

The other members of the working group include: Victoria Ianni, director of student life in Whittman College; Thomas Dunne, associate dean of undergraduate students; Jeff Nunokawa, professor of English, master of Rockefeller College and a member of the Eating Club Task Force; Michael Olin, director of student life at Wilson College; Robert Sandberg, lecturer in English, theater and the Lewis Center for the Arts; and Susan Teeter, head coach of women’s swimming.

President Settlement services director for the Princeton University Library. Overseeing the work of several Firestone Library public services departments — including circulation, reserve, interlibrary loan, borrow direct, stacks management and the access office — and coordinating these services through the campus library system.

Quote: “I know we have done a great job, and I am satisfied when faculty and students come to the library, either physically or virtually, and they leave with the resources or information that they need.”

As we embark upon our major renovation project at Firestone, my colleagues and I will be prepared to provide even more assistance, as we know there will be times when our patrons may be inconvenienced because of the project.”

• How can undergraduate social and residential life be enhanced and improved on campus?
• How can the University enrich the social and residential experience in the residential colleges?

The school offers two-, three- and five-day morning programs on a cooperative basis for children ages 2-1/2 through 4, as well as extended and full-day noncooperative care for children ages 3 and 4. The school is accredited by the National Association for the Education of Young Children.

Applications for fall 2011 currently are being accepted. Priority in admissions is given to University families and to families who apply by the open house. Oversubscription is resolved by lottery. For more information, call 209-9777 or visit <www.unls.org>.

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NURSERY SCHOOL TO OPEN HOST OPEN HOUSE OCT. 20

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Deadline

In general, the copy deadline for each issue is the Friday 10 days in advance of the Monday cover date. The deadline for the next issue, which covers Nov. 15-Dec. 12, is Friday, Nov. 5. A complete publication schedule can be found at <www.princeton.edu/bulletin/submitevents>. Call 258-3561 with questions.

To submit events for consideration for “Nassau notes,” go to <www.princeton.edu/main/news/share/submittenvents>.

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Committee to assess University's disability services

A committee of faculty and staff members has been formed to assess Princeton University’s disability services and to help strengthen the University’s efforts to provide an inclusive, accessible, campus environment.

The Ad Hoc Committee on Disability Services for Undergraduates, appointed by Provost Christopher Eisgruber, will review the services provided by the Office of Disability Services, which was established in 2006 to more effectively meet the needs of faculty, staff, students and visitors with disabilities. In particular, the committee will examine the growth in the population of students with special needs — especially those with learning disabilities — that is occurring not only at Princeton, but at universities nationwide.

The committee uses Princeton’s approach to requests from undergraduate students for individualized accommodations related to their academic programs. Its members will consult broadly with the student body and faculty, and also with a range of administrative professionals and experts at Princeton and other institutions.

Jean Schwarzbrauer, professor of molecular biology, will chair the committee, which is expected to complete its work and discuss its findings with Eisgruber by the end of this academic year.

“Many of the committee’s members will have to invest considerable time and effort in order to execute this project successfully,” Eisgruber said. “I thank them for their willingness to do so; that alone can matter greatly to the quality of education that Princeton provides to its students.”

According to Eisgruber’s charge to the committee, the members will evaluate the appropriateness of the Office of Disability Services’ current policies and procedures, identify best practices within the field and “shape a commitment to an inclusive, accessible and equitable campus.”

The key questions the committee will seek to answer include:

• Is the Office of Disability Services using an appropriate strategy to determine whether to grant or deny requests for accommodations related to the under-graduate academic program?
• Is the University providing an appropriate range of accommodations to students with disabilities?
• Does the University have an appropriate process and timeline for reviewing the documentation that students submit to support their accommodation requests?
• Does the University have in place an appropriate and effective appeals process for handling informal and formal appeals of decisions by the Office of Disability Services?
• Has the University constructed effective and efficient communication mechanisms between the Office of Disability Services and other offices and academic departments?

In addition to Schwarzbrauer, the committee members include: Claire Fowler, senior associate dean of the college; Hendrik Hartog, the Class of 1921 Bicentennial Professor in the History of American Law and Liberty; John Horgan, professor, executive director of University Health Services; Andrea LaPbaugh, professor of computer science; Erin Maccart, executive associate director of athletics; Daniel Oppenheimer, associate professor of political science; and Dmitri Tymoczko, associate professor of music. Eve Tominey, director of the Office of Disability Services, and Hannah Ross, University counsel, will sit with the committee. Terri Reed, vice provost for institutional equity and diversity, will serve as secretary.

Provost launches search for dean of the college

Princeton Provost Christopher Eisgruber has formed a committee to search for a successor to Nancy Malkiel, who has announced that she will step down as dean of the college at the end of this academic year.

Eisgruber, who will chair the search committee, said he hopes to have a new dean selected by the end of January so that there will be an opportunity for overlap.

Other members of the committee are: Manjul Bhargava, the R. Brandon Fradd, Class of 1983, Professor of Mathematics; Wallace Bowers, professor of religion and African American studies; Brandice Canes-Wrone, professor of politics and public affairs in the Woodrow Wilson School of Public and International Affairs; Robert Kasten, the Kennedy Foundation Professor of Latin Language and Literature and professor of classics; Margaret Martonosi, professor of electrical engineering; Harvey Rosen, the John J. and Nelle E. Weinberg Professor of Economics and Business Policy and master of Whitman College; Veronica Shi, a senior majoring in molecular biology, and Michael Weinberg, a senior majoring in operations research and financial engineering who is a member of the graduate Student Government’s Undergraduate Life Committee. Vice Provost Katherine Rohrer will serve as secretary to the committee.

Report to the provost, the dean of undergraduates and other key players is responsible for the University’s undergraduate academic program.

Committee on undergraduate women’s leadership seeks feedback

A committee established to develop a better understanding of women’s leadership in academic and extracurricular activities at Princeton has launched a website seeking observations about leadership roles at the University and suggestions from students, alumni, faculty and staff.

The Steering Committee on Undergraduate Women’s Leadership was commissioned by President Christopher Eisgruber to provide recommendations to expand opportunities for students to pursue leadership roles inside and outside the classroom. The committee’s website asks campus community members to answer a series of questions about their experiences and views related to student leadership at the University. This information will help the committee shape its recommendations, according to committee chair Nanneke Koehane.

“The committee already has gathered valuable input from many Princetonians in the initial phases of our work, and we look forward to capturing the full range of diverse perspectives on this issue,” said Koehane, the Laurence S. Rockefeller Distinguished Visiting Professor in the Woodrow Wilson School of Public and International Affairs and the University Center for Human Values. “Feedback from the website will augment the committee’s work as it continues to meet with various groups this fall. The insights gained are critical to our work as we explore whether there are disparities in how male and female undergraduate students are recognized and given opportunities to participate inside and outside the classroom at Princeton.”

The website includes information on the members and purpose of the committee, as well as a timeline of the committee’s activities. The site will be updated as the committee works to fulfill its charge by February 2011 to issue a report describing its findings and presenting recommendations for improving the opportunities for all students to excel at Princeton.

Visit the News at Princeton Web page at www.princeton.edu/main/news> for other recent stories, including the following:

• The Princeton class of 2014, selected from a record number of applicants, reflects continued success in the University’s efforts to attract a diverse student body and to make a Princeton education affordable to all students who enroll. This year, 768 freshmen, or 58 percent of the class, are receiving financial aid, with a total of $27 million in scholarships. The class of 2014 also includes the largest number of students from minority backgrounds in Princeton’s history, with a total of 490 students from American minority groups representing 37.3 percent of the class.

• U.S. Secretary of Energy Steven Chu discussed with staff at the Princeton Plasma Physics Laboratory how scientists must come to the country’s aid in times of need, and how nuclear energy — both fission and fusion — could be solutions to the world’s energy challenges. In his Sept. 27 visit, the Nobel Prize-winning scientist described the lab as being at the center of the intellectual “holy grail” of science.

• A team led by Princeton geoscientist Jernoh Tema has developed the capability to produce realistic movies of earthquakes based on complex computer simulations that can be made available worldwide within hours of a disastrous upheaval. The videos show waves of ground motion spreading out from an epicenter. In making them widely available, the team of computational seismologists and computer scientists aims to aid researchers working to understand earthquakes and develop better maps of the Earth’s interior.

• The predatory targeting of minorities in segregated urban areas was a key factor in the recent U.S. mortgage foreclosure crisis, two Princeton scholars have concluded in a new study. Although the rise in subprime lending and the ensuing wave of foreclosures was partly a result of market forces that have been well documented, the foreclosure crisis also was a highly concentrated, geographic phenomenon, according to graduate student Jacob Rugh of the Woodrow Wilson School of Public and International Affairs and Professor Douglas Massey of sociology and the Wilson School.

• With the aim of expanding internship opportunities for Princeton students, while at the same time broadening outreach to alumni with a commitment to civic engagement, the Princeton Institute for Civic Engagement and the Princeton Undergraduate Class of 1969 Community Service Fund launched a partnership over the summer to support Princeton Internships in Civic Service. This new partnership is among a growing number that involve alumni giving ties with the University for programs that exemplify Princeton’s informal motto, “in the nation’s service and in the service of all nations.”
Preparations begin for construction of graduate student housing at Hibben-Magie

Kathleen Stevens

P rinceton has selected American Campus Communities (ACC) to assist with preparations associated with the redevelopment of the Hibben-Magie site for graduate student housing.

The Austin, Texas-based company is one of the largest developers of student housing communities in the country. The company will work with the University on predevelopment tasks such as conducting focus groups with graduate students and other stakeholders, obtaining regulatory approvals, evaluating design and financing alternatives, estimating costs, and scheduling services. A report design with all regulatory approvals is expected to emerge from this collaboration.

“After a great deal of research, including visits to a number of locations where ACC and others have developed similar complexes, we learned that there are several firms that produce very high-quality products and services,” said Michael McKay, vice president for facilities, who directed a team of Princeton administrators through the search for a firm for the project. “ACC is clearly a leader in this field, and they impressed the selection team with both projects and operations that respond to the particular housing needs of graduate students. We’re very much looking forward to partnering with them to meet the institution’s goals for this site.”

The University, with ACC, also has committed an architect for the project, and negotiations are under way with that firm. The selection process included a review of qualifications by a team and from interviews with a short list of architects. A member of the Graduate Student Government was an interviewer and was critical to the overall decision-making.

The redevelopment project is intended to provide newly constructed housing units for 475 to 625 graduate students. The predevelopment phase is expected to take two years, with construction anticipated to begin in 2012. The construction period will last approximately two years, and plans call for graduate students to occupy the apartments in the summer of 2014. The project is part of the University’s Housing Master Plan, begun in 2005 to enhance housing programs for faculty, staff and graduate students, as well as the Campus Plan, begun in 2006 to guide campus development through 2016.

The Hibben and Magie apartments are two adjacent mid-rise buildings located south of Faculty Road and east of Alexander Street occupied during the 2009-10 academic year by 240 graduate students and 54 faculty and staff. Constructed in the 1960s, the 192 units have outdated building systems and interior layouts, and do not offer residents amenities found in more contemporary housing facilities. Part of ACC’s work will be determining the size and mix of units (studio, one-bedroom, two-bedroom or three-bedroom) and whether or not to retain all or part of the existing Hibben-Magie buildings as part of the design. Members of the selection committee were particularly impressed with ACC’s collaborative approach, as well as the standard of development and operations of student housing developments that ACC developed, providing a model for the redrawn Hibben-Magie site.

Employee retirements

Effective June 1: In Building Services, junior Danny Caldwell, after 17 years, and in Medical and Health Sciences, technical staff member Carol Chalmel, after 23 years; in the plasma physics lab, head of information services Anthony DelMeco, after 34 years; and in Business Services, janitor James Fuller Sr., after 15 years.

Effective July 1: In psychology, research scholar Casimire Fornal, after 27 years, in the Office of the Provost, chair of the Mpala Research Trust Laurel Harvey, after 28 years; in stewards, director Herb Johnson, after 28 years; In loans and receivables, associate manager Barbara Jones, after 40 years; in Print and Mail Services, associate manager Tina Shapiro, after 23 years; in teacher preparation, director John Webb, after 10 years; and in maintenance, senior professional specialist John Welsh, after 25 years.

Effective Oct. 1: In the plasma physics lab, neutral beam source technician Edward Gilsenan, after 34 years; and in the plasma physics lab, science education administrator Christine Ritter, after 31 years.

Effective Sept. 1: In Print and Mail Services, digital print supervisor Jerome Andrajeskowicz, after 16 years; in the Bendheim Center for Finance, director of corporate relations David Blake, after 10 years; in the plasma physics lab, senior engineer Fred Dahlgren, after 36 years; in chemistry, professional researchers and specialists administrator and seminar coordinator Bennie DeMayo-Zeller, after 23 years; In Print and Mail Services, associate director of mail services Michael Devlin, after 16 years; and in the art museum, security administrator Gloria Meek, after 50 years; in Building Services, janitor Francis Fennon, after 11 years; in the library, special collections assistant Debbie Grant, after 21 years; in chemistry, department manager Stephanie Greene, after 10 years; in the plasma physics lab, principal engineer Robert Marsala, after 31 years; in teacher preparation, program administrator Helen Martinson, after 10 years; and in Print and Mail Services, production assistant supervisor Joseph Mattara, after 31 years.

Employee obituaries

Current employees

April: James Johnson, director and deputy provost, after 25 years.

John Welsh, after 10 years; and in molecular biology, technologist after 28 years; in loans and receivables, manager after 23 years; in the Office of the Provost, chair of the Mpala Research Trust Laurel Harvey, after 28 years; in loan and receivables, associate manager Barbara Jones, after 40 years; in Print and Mail Services, associate manager Tina Shapiro, after 23 years; in teacher preparation, director John Webb, after 10 years; and in maintenance, senior professional specialist John Welsh, after 25 years.

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Effective Oct. 1: In chemistry, master instrument maker Kenneth Andrews, after 32 years; in the Council of Ivy Group Presidents, department office support staff member Jane Antic, after 22 years; in chemistry, senior laboratory coordinator Surjit Choudhary, after 10 years; and in Judaic studies, program manager Marcia Citron, after 11 years.

American Campus Communities will collaborate with Princeton on the redevelopment of the Hibben-Magie site to house graduate students.

Ph.D. programs get high marks in national assessment

Cassy Clancy

T he majority of Princeton’s Ph.D. programs evaluated in a national assessment of research colleges and universities released Sept. 28 ranked among the best in the country.

Princeton was one of 212 research institutions that contributed data to the National Research Council (NRC) for its report, “An Assessment of Doctoral Programs in the United States,” which was developed as a new national resource on graduate education. Twenty-one of Princeton’s 35 programs evaluated in the assessment received rankings that were at or very near the top of their field.

The NRC assessment evaluated programs on two scales: survey-based “S-rankings,” which reflect the degree to which a program is strong in the characteristics that faculty in the field rated as most important to the overall quality of a program; and regression-based “R-rankings,” which compare the statistics of individual doctoral programs based on faculty evaluators’ opinions about a sample of programs in that field. The number of evaluated programs within specific fields varied widely according to the number of institutions that provided data for their programs. For example, the number of psychology Ph.D. programs evaluated by the NRC was 237, while 74 programs were evaluated in operations research, systems engineering and industrial engineering.

According to the NRC data for Princeton:

• Seventeen of Princeton’s evaluated programs were very highly rated in both the S-rankings and R-rankings such that the ratings these programs received were entirely above the ratings received by 80 percent of the programs in their fields.

• Among these 17 programs, six of the programs — those in applied and computational mathematics, psychology, electrical engineering, mathematics, computer science and the Woodrow Wilson School of Public and International Affairs — have top rankings across the country, rating between 1 and 4 on both the S-rankings and R-rankings.

• Ten of those programs had top ratings on one of the two rating scales: Eight programs — those in astrophysical sciences, civil and environmental engineering, and evolutionary biology, economics,
Upcoming

Readings: Richard Price and C.D. Wright
4:30 p.m. Oct. 20
185 Nassau St., Stewart Theater

Chimamanda Ngozi Adichie, novelist
8 p.m. Oct. 20
McCosh Hall, Room 50

William Powers, class of 1979
8 p.m. Oct. 21
Computer Science Building, Room 104

Conference: “Law & Princeton”
Various times Oct. 21-23
Details at lapa.princeton.edu

Lecture: “The Global Vaccine Industry: Risks and Opportunities”
Adel Mahmoud
12:30 p.m. Oct. 22
Icahn Laboratory, Room 280

Evan Thomas
10 a.m. Oct. 23
Lewis Library, Room 120

Concert: Princeton University Orchestra
8 p.m. Oct. 23 and 3 p.m. Oct. 24
Alexander Hall, Richardson Auditorium

Lecture: “Chinese Economic Statecraft”
William Norris
4:30 p.m. Nov. 10
Roberto von Hall, Room 1

Lecture: “The Politics of Food and Health Care”
Marion Nestle, New York University; David Kessler, University of California-San Francisco; and Ruth Roach, food writer
4:30 p.m. Nov. 10
McCosh Hall, Room 50

Service: Veterans Day observance
8:30 a.m. Nov. 11
University Chapel

Lectures: “Fundamentals” (two parts)
Frank Witzke, Massachusetts Institute of Technology
8 p.m., Nov. 11 and 4:30 p.m. Nov. 12
McCosh Hall, Room 50

President's Lecture Series

Denis Feeney, a Princeton professor of classics, will deliver the first talk in this year's President's Lecture Series. His lecture will be held at 4:30 p.m. Tuesday, Oct. 26, in the Friend Center, Room 101.

Feeney will present a lecture titled “Wormholes and Time Machines on the Site of Virgil’s Rome.” In Virgil’s epic “Aeneid,” the Trojan hero Aeneas tours the site of Rome centuries before the city is founded. Feeney will discuss how the resulting contrast between “then” and “now” illuminates how Virgil and his Roman audience imagine the movement of history and the destiny of their city and its monuments.

Feeney’s talk is the first of three scheduled for this year’s President’s Lecture Series. Nolan McCarty, the Susan Dod Brown Professor of Politics and Public Affairs, will speak on Thursday, Dec. 2, followed by a talk by Virginia Zakian, the Harry C. Wiess Professor in the Life Sciences, on Thursday, March 24. Both lectures will be held at 4:30 p.m. in the Friend Center, Room 101.

The lecture series was started by President Tilghman in 2001 to bring together faculty members from different disciplines to learn about the work others are doing in a variety of fields. The talks will be webcast; viewing information will be available at <www.princeton.edu/webmedia>.

Doug Atkin’s monumental video installation, Migration (Empire), will be on view in front of the Princeton University Art Museum from dusk to 11 p.m. daily through Nov. 14. Atkin is one of today’s most prominent video artists. “Migration” reflects on the experience of migration by piecing together footage of industrial and postindustrial landscapes with a series of surreal scenes featuring a host of migratory animals.

Calendar Links

For broader listings of campus public events:
PUBLIC EVENTS CALENDAR
<www.princeton.edu/events>
Information on tickets is available at the website below:
UNIVERSITY TICKETING
<www.princeton.edu/tickets>
258-9220

For listings by selected University sponsors:
Art Museum
<www.artmuseum.princeton.edu>
258-3768

Athletics
<www.princetonathletics.com>
258-3768

Center for African American Studies
<www.princeton.edu/africanamericanstudies/events>
258-4274

Council of the Humanities
<www.humanities.princeton.edu/calendar>
258-4177

Frist Campus Center
<www.princeton.edu/first>
258-5765

Lewis Center for the Arts
<www.princeton.edu/arts/events/calendar>
258-1500

Library
<www.princeton.edu/llacexhibitions>
258-3181

McCarter Theatre
<www.mccarter.org>
258-2787

Music Department
<www.princeton.edu/music>
258-4241

Office of Information Technology
<www.princeton.edu/oit>
258-2949

Public Lecture Series
<lectures.princeton.edu>
258-6100

Princeton Institute for International and Regional Studies
<www.princeton.edu/~rbsc/exhibitions>
258-4851

Princeton University Concerts
<www.princeton.edu/pconcerts>
258-2800

Richardson Auditorium
<www.princeton.edu/richaud>
258-5000

School of Architecture
<soa.princeton.edu>
258-5000

School of Engineering and Applied Science
<www.princeton.edu/soa>
258-3741

School of Engineering and Applied Science
<www.princeton.edu/soa>
Vargas Llosa
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Princeton University Bulletin
Oct. 18, 2010

Nobel Prize. To accommodate the increased interest, the location was moved to Richardson Auditorium, where he delivered a lecture in Span-

ish to a crowd of more than 500 on the trend of trivialization in modern culture. He explained that if the main goal of culture is to entertain, the result can be banalization, adding that all members of a society need to be aware of the consequences this can have on shared moral, cultural, social, political and civic experiences.

“En todas las épocas historias hay sido personas cultas y incultas,” he said. “Throughout the ages of history there have been educated and unedu-
cated people.” He later added, “La cultura es... un denominador común.” (Culture is a common denominator.)

“Our students have already had a great opportunity to work directly not only with a first-rate writer, of course, but a writer who’s been seen to take on social issues directly and decisively,” said Paul Muldoon, chair of the Lewis Center, who is a Pulitzer Prize-winning poet. “It’s important that our students, and the rest of us, are reminded that literature is a real force in the world.”

Maria Julia Gutierrez, a junior from Mexico who is in Vargas Llosa’s class on the techniques of the novel, said that her family was astonished that she was able to take a class with the distinguished professor. “It’s something that will mark my Princeton experience and is something that I will never forget,” said Gutier-

rer, who is majoring in the Woodrow Wilson School of Public and Interna-
tional Affairs and pursuing a certificate in Latin American studies, “The class has been amazing. Not only are we able to hear this famous author, but interact with him on a personal level.”

Vargas Llosa is a prominent voice in the world of Peruvian politics — as a prolific essayist and as a candidate for the country’s presidency in 1990 — who has often written about historical events in his fiction.

“He has an especially keen eye for the absurdity that characterizes Latin America’s strangest histori-
cal moments,” said Robin Galiana, a professor of Spanish and Portuguese languages and cultures and the director of the Program in Latin American Studies. “He gives historical events a beautiful novelistic form. His plots are elegant and well-told, and he gives the per-
spective of how these political episodes affect the everyday person liv-
ing in Latin America,”

Literary scholar Gabriel Nouzeilles, who has known Vargas Llosa since the late 1960s, said the award validated the writer’s broad influence in Latin American lit-
ture and politics through his fiction and his essays.

“This is a recognition not just for him, but a recognition of Latin American liter-

erature,” said Diaz-Quiñones, the Emory L. Ford Professor of Spanish Emeritus at Princeton. “He is a representative writer in so many ways of Latin Ameri-

can literature. This prize is a recognition of the richness and wealth and variety of Latin American literature.”

Those sentiments were echoed by Gabriela Nouzeilles, professor of Span-

ish and Portuguese languages and cultures and chair of the Department of Spanish and Portuguese Languages and Cultures. She said that Vargas Llosa’s “literary fictions explore humanity in its multiple and contradictory dimen-
sions, from the horror of history and the violent legacy of colonialism and politi-
cal madness, to the sweeping forces of erotic desire and the miracle of laughter.”

“He is a masterful story-
teller, able to bewitch the reader with the power of his poetic prose and the fascinat-
ing complexity of his fictional worlds,” Nouzeilles said. (Throughout the ages of history there have been educated and unedu-
cated people.) He later added, “La cultura es... un denominador común.”

“We are always right to hear this famous author, but interact with him on a personal level.”

Historian Jeremy Adelman said that many of Vargas Llosa’s political crusades have been on individual rights and freedoms.

“He has always defended the space and autonomy of culture,” said Adel-
aman, the Walter Samuel Carpenter III Professor in Spanish Civilization and Culture and director of Princeton’s Council for International Teaching and Research. “Writers need to have autonomy from political structures. It’s not always a popular stance but he was always a defender of it. He’s a classical liberal with a fabulous imagination.”

At the press conference, Vargas Llosa addressed questions about whether he believed the prize was associated with his political beliefs.

“I am a writer but I am also a citi-

zen. I have literary ideas and values, but I also have ideas about political issues,” he said. “But I am basically a writer, and I would like to be remem-
bered for my writing as well.”

At Princeton this semester, Vargas Llosa is giving students an intimate opportunity — through his courses and other opportunities for interaction — to gain insights into his thinking about the craft of writing.

“I am basically a writer, not a teacher, but I enjoy teaching because of the students, and the chance to talk to them about good literature,” Vargas Llosa said earlier this fall. “Good liter-

erature is not only entertainment — it is a fantastic entertainment — but it’s also something that gives you a better understanding of the world in which you live. Literature is an exploration of all possibilities of human life.”

Vargas Llosa tells his students that composing fiction is an all-consuming and all-encompassing enterprise that requires customizing of your entire personality and life, and I think it’s the only way you can suc-
cessfully write — with discipline and also a stubbornness,” he said.

The award to Vargas Llosa came 17 years after Toni Morrison, who is now Princeton’s Robert F. Goheen Profes-
sor in the Humanities Emeritus, won the Nobel Prize in literature.

ABOVE: Vargas Llosa and Gallo share a laugh at the reception honoring the Nobel Prize winner, top, and Vargas Llosa with (from left) Caitlin Sanford, a graduate student in the Woodrow Wilson School of Public and International Affairs, and Mariana Socal, a Wilson School graduate alumnus. ABOVE RIGHT: Paul Muldoon (left), chair of the Lewis Center for the Arts, greets Vargas Llosa at the reception.

Ph.D. programs
Continued from page 4

English, history, philosophy and sociology — had S-rankings between 1 and 4; and one program — French and Italian — had an R-ranking between 1 and 4. The majority of Princeton’s evalu-

ated programs within the humanities have on shared moral, cultural, social, political and civic experiences.

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Steven Gubser’s cool, relaxed style and straightforward manner make it easy to see how he might be able to make sense of the world and to bring along on his journey of discovery those who may not be privy to his knowledge.

A Princeton professor of physics, Gubser is one of the world’s leading exponents of string theory, an extremely complex and still controversial branch of modern theoretical physics. The theory attempts to describe, in a mathematically consistent system, both matter—the basic content of the universe—and the known fundamental forces that act upon matter, such as gravity and electromagnetism.

There are frustrations and uncertainties inherent in the scientific endeavor, Gubser says, and in particular, his own field. But they are well worth it. He is committed to sharing the insights he glean with students and the vast world of nonscientists.

“I want to be part of the effort by some scientists to convey their work to a broader audience,” said Gubser, speaking one weekday morning in his sunny Jadwin Hall office.

An important part of this public-mindedness is his latest popular science book, “The Little Book of String Theory,” published in April by Princeton University Press. In a deft 162 pages, he describes some of his own ideas, but also strives to explain what many view as a maddeningly complex branch of science that views fundamental particles like quarks and electrons as tiny strings.

Often called “the theory of everything,” string theory seeks to describe all the forces of nature in one unifying framework. Over the decades of string theory’s development, it has been a significant source of concern that the theoretical physics to remain relevant.

In addition, the gauge-string duality providing expert details on a character bring enthusiasm to class in collisions of heavy ions. That could be significant areas of physics. That could explain his most recent research focus—


Gubser has met with success as a Princeton physicist Alex-

Postdoctoral work at Harvard University, Gubser joined the Princeton faculty in 2000. Looking back, Gubser’s entry in the field coincides with an outburst of activity that is now regarded among physicists as the “second revolution” in string theory, following a similar burst of activity in the 1980s. Joining ideas formulated by Juan Maldacena and Edward Witten of Columbia, which was published in Nuclear Physics B in October of Gubser’s senior year. For his senior thesis amplifying that work, Gubser won the American Physical Society’s 1994 Apker Award, which recognizes the top undergraduate physics thesis in the United States.

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Experimentalist in everyday life

Gubser met Laura Landweber at Princeton in 2000 after enceing a physics department music recital. He had Landweber, when he is baking homemade breads with his daughters. All the girls participate some stage of the process, with the littlest one punning down the dough.

And while he may be bird-dogging the same theme throughout his career, his activities, she said, display differ-

He became a student at Princeton and excelled, earning his undergradu-

age in physics. Gubser and Landweber, a professor of ecology and evolutionary biology at Princeton, share a passion for science and family.

Gubser the theorist shows his experimentalist side best, according to Landweber, when he is baking homemade breads with his daughters. All the girls participate some stage of the process, with the littlest one punning down the dough.

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Gubser is always looking for ways to bring string theory to more mainstream and experimentally accessible areas of physics. That could explain his interest in ongoing research focusing on how the behavior of black holes in string theory sheds light on the possible existence of a universe which is a recently discovered, high-

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Postdoctoral scholars join Society of Fellows in the Liberal Arts

Three new postdoctoral scholars have joined the Society of Fellows in the Liberal Arts this year. The society, created in 2000 by a gift from P. Tristram-Lloyd Cotsen, a 1950 graduate, is an interdisciplinary community that seeks to bring innovative approaches to scholarship and teaching at Princeton. It offers outstanding young scholars who have recently completed their Ph.D. the opportunity to enhance their teaching and research over a period of three years.

Susan Stewart, the Annan Professor of English, has joined the society as its new director. A former MacArthur Fellow, Stewart serves as a chancellor fellow in the Liberal Arts this year.

The society includes Princeton faculty members who serve as faculty fellows and meet regularly with the Cotsen Fellows in the Joseph Henry House. The full complement of 14 postdoctoral fellows is drawn from disciplines in the humanities, related social sciences and natural sciences. Twenty-six fellows have been selected from more than 1,400 applicants. They teach half-time in their academic department and pursue their own research. They are: Simon Grote, Cotsen Fellow and lecturer in history; who recently completed his Ph.D. in history at the University of California-Berkeley. His research project aims to rewrite the early history of modern aesthetic theory by situating its origins in late 17th and early 18th-century theology, moral philosophy and natural law theory. He will offer a seminar on the Enlightenment and join the faculty team teaching “Approaches to Western Culture.”

Christina Halperin, PLAS-Cotsen Fellow in Latin American studies and lecturer in art history and archaeology, who holds a Ph.D. in anthropology from the University of California-Riverside. Her dissertation examines late classic Maya state and household relations through the lens of their production, circulation and imagery of ceramic figurines. She will teach an art history course on Mesoamerican material culture and an anthropology course on gender and Latin America.

Janet Vertesi, Link-Cotsen Fellow and lecturer in sociology, who received her Ph.D. in science and technology studies from Cornell University. Her dissertation analyzes the use of images to conduct scientific investigations of Mars and plan robotic operations on its surface. She will revise her dissertation for publication and pursue a second, interdisciplinary project on “the social life of spacecraft.” She is teaching a course on the sociology of technology and a freshman seminar on “Science and Art.”

This sequence shows stages of a massive explosion of a huge, dying star. This supernova has the potential energy of 25 hundred trillion trillion nuclear weapons.

**Supernovae**

Continued from page 1

physics was incorrect or incomplete. This team used the same guiding physics principles, but used supercomputers that are more powerful, employing a representation in three dimensions that allowed the various multidimensional instabilities to be expressed.

“It may well prove to be the case that the fundamental impediment to progress in supernova theory over the last few decades has not been lack of physical detail, but lack of access to codes and computers with which to properly simulate the collapse phenomenon in 3-D,” the team wrote. “This could explain the agonizingly slow march since the 1960s toward demonstrating a robust mechanism of explosion.”

**Birth of a supernova**

Supernovae are the primary source of heavy elements in the cosmos. Their brightness is so consistently intense that supernovae have been used as “standard candles” or gauges, acting as yardsticks indicating astronomical distances.

Most result from the death of single stars much more massive than the sun. As a star ages, it exhausts its supplies of hydrogen and helium fuel at its core. With still enough mass and pressure to fuse carbon and produce other heavier elements, it gradually becomes layered like an onion with the bulkiest elements at its center. Once its core exceeds a certain mass, it begins to implode.

*In the squeeze, the core heats up and a certain mass, it begins to implode.**

Then, very visibly, there is a massive explosion, and the star’s outer layers are ejected into space. This highly perceptible stage is what observers see as the supernova. Scientists don’t know what occurs to make the central region of the star instantly unstable. The emission of neutrinos is believed to be related, but no one is sure how or why.

“We don’t know what the mechanism of explosion is,” Burrows said. “As a theorist who wants to get to root causes, this is a natural problem to explore.”

**Multiple scientific approaches to solve the problem**

The scientific visualization employed by the research team is an interdisciplinary effort combining astrophysics, applied mathematics and computer science. The endeavor produces a presentation through computer-generated images of three-dimensional phenomena. In general, researchers employ visualization techniques with the aim of making realistic renderings of quantitative information including surfaces, volumes and light sources. Time is often an important constant, contributing to making the images dynamic as well.

To do their work, Burrows and his colleagues came up with mathematical values representing the energetic behaviors of stars by using mathematical representations of fluids in motion — the same partial differential equations solved by geophysicists for climate modeling and weather forecasting. To solve these complex equations and simulate what has happened inside a dying star, the team used an advanced computer code called CASTRO that took into account factors that changed over time, including fluid density, temperature, pressure, gravitational acceleration and velocity.

The calculations took months to process on supercomputers at Princeton and the Lawrence Berkeley Laboratory. The simulations are not an end unto themselves, Burrows noted. Part of the learning process is viewing the simulations and connecting them to real observations. In this case, the most recent simulations are unani mously similar to the explosive behavior of stars in their death throes witnessed by scientists. In addition, scientists often learn from simulations and see behaviors they had not expected.

“Visualization is crucial,” Burrows said. “Otherwise, all you have is merely a jumble of numbers. Visualization via stills and movies conjures the entire phenomenon and brings home what has happened. It also allows one to diagnose the dynamics, so that the event is not only visualized, but understood.”

The research was funded by the U.S. Department of Energy and the National Science Foundation.

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