

the academic week at Caltech

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<http://today.caltech.edu/calendar>. To publish events online, register as an event planner on the Caltech Today calendar. If unable to submit electronically, please call (626) 395-3630. For further information or a schedule of deadlines, call (626) 395-3630, fax (626) 449-2159, write 336 Calendar, 1-71, California Institute of Technology, Pasadena, CA 91125, or e-mail debbieb@caltech.edu.

November 7–13, 2005

Σ − Σ − L S S

Monday, November 7

Aeronautics Seminar
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 1 p.m.—“Rockets and Space Launch Failures,” I-Shih Chang, distinguished engineer, Aerospace Corporation.

Applied Physics Special Seminar
104 Watson, 4 p.m.—“From Flapping Birds to Space Telescopes: The Modern Science of Origami,” Caltech graduate Robert Lang (BS ‘82, PhD ‘86), formerly a member of the technical staff at JPL, now a full-time origami artist.

Biophysics Lecture Series
153 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Some Physical Aspects of the Origin of Life and of Artificial Cells,” Albert Libchaber, Bronk Professor, Laboratory of Experimental Condensed Matter Physics, Rockefeller University.

Ulric B. and Evelyn L. Bray Seminar
25 Baxter, 4 p.m.—Topic to be announced. Moshe Buchinsky, professor of economics, UCLA.

Geological and Planetary Sciences Seminar
155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“Fast Mountain Building,” Professor Jay J. Ague, department of geology and geophysics, Yale.

High Energy Physics Seminar
469 Lauritsen, 4 p.m.—“A Theorist’s View on the Experimental Options for Measuring θ_{13} and δ ,” Boris Kayser, Fermi National Accelerator Laboratory.

Applied Mathematics Colloquium
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 4:15 p.m.—“Applied and Computational Geometry,” Mathieu Desbrun, associate professor of computer science, Caltech.

Tuesday, November 8

Institute for Quantum Information Seminar
74 Jorgensen, 3 p.m.—Topic to be announced. Professor Willem van Dam, computer science department, UC Santa Barbara.

Mechanical Engineering Seminar
206 Thomas, 3 p.m.—“Detachment Waves and the Onset of Friction,” Professor Jay Fineberg, Racah Institute of Physics, Hebrew University. Refreshments, 210 Thomas, 2:45 p.m.

Carnegie Observatories Colloquium Series
William T. Golden Auditorium, 813 Santa Barbara Street, 3:30 to 5 p.m.—Topic to be announced. Professor Harvey Richer, department of physics and astronomy, University of British Columbia. Refreshments.

Chemical Physics Seminar
147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Nonlinear Optical Spectroscopy as a Novel Probe for Molecular Chirality,” Y. Ron Shen, professor of physics, UC Berkeley.

General Biology Seminar
119 Kerckhoff, 4 p.m.—“Structural Properties of Dynamin Reveal a Mechanism for Membrane Constriction,” Dr. Jenny Hinshaw, Laboratory of Cell Biochemistry and Biology, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health.

Wednesday, November 9

Mathematical Physics Seminar
351 Sloan, noon—“Spectral Asymptotics for a Perturbed Landau Hamiltonian,” Alexander Pushnitski, visiting associate in mathematics, Caltech.

Environmental Science and Engineering Seminar
142 Keck, 3:40 to 5 p.m.—“Virtual Observatory for Coastal Ocean Science and Applications,” Yi Chao, principal scientist, earth science section, JPL.

Astronomy Colloquium
155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“The Highs and Lows of Accretion in Nuclear Black Holes,” Luis C. Ho, staff astronomer, Carnegie Observatories.

Kroc Lecture
119 Kerckhoff, 4 p.m.—“Vesicular Traffic: Mechanism and Disease Implications,” Randy Schekman, professor of cell and developmental biology, UC Berkeley, and investigator, Howard Hughes Medical Institute.

Organic Chemistry Seminar
153 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Exploring Asymmetric Synthesis Using Lewis Base Catalysis,” Professor Scott Schaus, department of chemistry, Boston University.

Thursday, November 10

Engineers for a Sustainable World @ Caltech
306 Thomas, 3 p.m.—Topic to be announced. Amy Smith, MIT.

Ulric B. and Evelyn L. Bray Seminar
25 Baxter, 4 p.m.—“Organizing Middle-Size Firms in the United States and France 1830–2000” (with Naomi R. Lamoreaux), Jean Laurent Rosenthal, professor of economics, UCLA.

Chemical Engineering Seminar
106 Spalding Lab, Hartley Memorial Seminar Room, 4 p.m.—“Engineering Microbial Metabolism: Fuels and Chemicals from Lignocellulose,” Lonnie Ingram, distinguished professor of microbiology, and director, Center for Renewable Fuels, University of Florida.

Friday, November 11

High Energy Theory Seminar
469 Lauritsen, 11 a.m.—Topic to be announced. Andrew Strominger, professor of physics, Harvard University.

Condensed Matter Physics Seminar
Downs 107, noon—Topic to be announced. Dimitri Novikov, Princeton University.

ESE & Society Discussion Group
151 Arms, Buwalda Room, noon—Discussion groups are held at noon on Fridays. Bring your own lunch.

High Energy Theory Seminar
469 Lauritsen, 1 p.m.—“Black Hole Degeneracies, Topological Strings, and Automorphic Forms,” Boris Pioline, Laboratory of Theoretical and High-Energy Physics, Paris.

Mathematics of Information Seminar
239 Moore, 2:30 p.m.—Topic to be announced. Mathieu Desbrun, associate professor of computer science, Caltech.

Fluid Mechanics Seminar
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 3 p.m.—“Detonation Interaction with Sharp and Diffuse Interfaces,” Daniel Lieberman, graduate student in aeronautics, Caltech.

Ulric B. and Evelyn L. Bray Seminar
237 Baxter, 4 p.m.—Topic to be announced. Joon Park, professor of economics, Rice University.

High Energy Physics Seminar
469 Lauritsen, 4 p.m.—Topic to be announced. Andrew Blechman, department of physics and astronomy, Johns Hopkins University.

Inorganic-Organometallics Seminar
151 Crellin, 4 p.m.—“Quantum Chemical Elucidations of Homogeneous Pd(II) Catalysis: New Insights in the Wacker Process and the Enantioselective Tsuji-Allylation Mechanisms,” John Keith, graduate student in chemistry, Caltech.

Kellogg Seminar
Lauritsen Library, 4 p.m.—“Novel QCD Phenomena and the Impact of AdS/CFT,” Professor Stanley Brodsky, Stanford University and Stanford Linear Accelerator Center.

November 14–20, 2005

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Monday, November 14

High Energy Physics Seminar
469 Lauritsen, 4 p.m.—Topic to be announced. Linda Carpenter, physics and astronomy department, Johns Hopkins University.

Applied Mathematics Colloquium
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 4:15 p.m.—“Time Reversal Super Resolution in Randomly Layered Media,” Knut Solna, assistant professor, mathematics department, UC Irvine.

Tuesday, November 15

Institute for Quantum Information Seminar
74 Jorgensen, 3 p.m.—Topic to be announced. Patrick Hayden, assistant professor of computer science, McGill University.

Mechanical Engineering Seminar
206 Thomas, 3 p.m.—“Grain-Scale Processes Associated with Shear Band Growth and Evolution in Sands,” Professor Amy Rechenmacher, civil and environmental engineering, USC.

Chemical Physics Seminar
147 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Nanoparticle Optical Properties and Biomolecule Detection: New Challenges,” George Schatz, Morrison Professor of Chemistry, Northwestern University.

Wednesday, November 16

Environmental Science and Engineering Seminar
142 Keck, 3:40 to 5 p.m.—“Backarc Basins, Mid-Ocean Ridges, and Hotspots: Thermophiles Thriving in Dynamic Environmental Gradients,” Professor Anna-Louise Reysenbach, microbial ecologist, department of biology, Portland State University.

Astronomy Colloquium
155 Arms, Robert Sharp Lecture Hall, 4 p.m.—“White Dwarfs in Star Clusters,” Professor Harvey Richer, department of physics and astronomy, University of British Columbia.

Novartis Lecture
153 Noyes, Sturdivant Lecture Hall, 4 p.m.—“Exciting Opportunities for Drug and Vaccine Discovery through Total Synthesis,” Professor Samuel Danishefsky, department of chemistry, Columbia University.

Einstein Centennial Lecture
Beckman Auditorium, 8 p.m.—“Einstein’s General Relativity, from 1905 to 2005: Warped Spacetime, Black Holes, Gravitational Waves, and the Accelerating Universe,” Kip Thorne, Feynman Professor of Theoretical Physics, Caltech. Admission is free.

Thursday, November 17

Caltech Library System: EndNote for Absolute Beginners
Sherman Fairchild Library, multimedia conference room, 2 to 3:30 p.m.—Learn what EndNote is and the basics of how it can work for you to create bibliographies within a word-processing document and as a search interface to online databases and catalogs, allowing you to directly export records to your computer. **Class full; call 395-6699 to be wait-listed. No walk-ins, please.**

Engineers for a Sustainable World @ Caltech
306 Thomas, 3 p.m.—Topic to be announced. Dr. Michael Rosberg, University of Belize.

Von Karman Lecture Series
JPL, von Karman Auditorium, 7 p.m.—“From Darkness to Light: The Exploration of the Planet Pluto,” Dr. Bonnie Buratti, JPL principal investigator, science-team member, New Horizons Mission to Pluto.

Friday, November 18

High Energy Theory Seminar
469 Lauritsen, 11 a.m.—Topic to be announced. Paul de Medeiros, department of physics, University of Michigan, Ann Arbor.

Condensed Matter Physics Seminar
Downs 107, noon—“Magneto-Optical Studies of Magnetic Multilayers and Nanostructures,” Professor Stefan Visnovsky, Institute of Physics, Charles University, Prague.

ESE & Society Discussion Group
151 Arms, Buwalda Room, noon—Discussion groups are held at noon on Fridays. Bring your own lunch.

High Energy Theory Seminar
469 Lauritsen, 1 p.m.—Topic to be announced. Xi Yin, department of physics, Harvard University.

Fluid Mechanics Seminar
101 Guggenheim Lab, Lees-Kubota Lecture Hall, 3 p.m.—“A Process for Formation of Multi-Mode Stretched Spiral Vortex in Turbulent Flows,” Kiyosi Horiuti, associate professor, department of mechano-aerospace engineering, Tokyo Institute of Technology.

Norman Davidson Lecture
Baxter Lecture Hall, 4 p.m.—“A Molecular Logic of Olfactory Perception,” Richard Axel, professor of biochemistry and molecular biophysics and of pathology, Columbia University, and investigator, Howard Hughes Medical Institute.

History and Philosophy of Science Seminar
Treasure Room, Dabney Hall, 4 p.m.—“Running a Laboratory in 19th-Century Germany: Virchow the Pathologist and Ludwig the Physiologist,” Professor Robert Frank, department of history, UCLA.

Inorganic-Organometallics Seminar
151 Crellin, 4 p.m.—“Catalytic Reactions with Chiral Titanium Amide-Alkoxides,” Adam Johnson, visiting associate in chemistry, Caltech.

Kellogg Seminar
Lauritsen Library, 4 p.m.—Topic to be announced. Christopher Mauger, postdoctoral scholar in physics, Caltech.

Von Karman Lecture Series
Pasadena City College, 1570 E. Colorado, the Vosloh Forum (south of Colorado on Bonnie), 7 p.m.—“From Darkness to Light: The Exploration of the Planet Pluto,” Dr. Bonnie Buratti, JPL principal investigator, science-team member, New Horizons Mission to Pluto.

German Language Film Series
Baxter Lecture Hall, 7:30 p.m.—*Mostly Martha* (2001). All films are in German with English subtitles.

Thorne to discuss Einstein

Caltech’s yearlong celebration of Albert Einstein will draw to a close with the final Einstein Centennial Lecture. The free public lecture series has marked the 100th anniversary of the scientist’s “miracle year,” in which he made several of his revolutionary discoveries in physics.

For its concluding event on Wednesday, November 16, at 8 p.m., the series will join the Watson Lecture Series in presenting “Einstein’s General Relativity, from 1905 to 2005.” Kip Thorne, Caltech’s Feynman Professor of Theoretical Physics, will relate the physicist’s 10-year effort to formulate a new theory of gravity.

On November 25, 1915, Einstein proclaimed to the world his general theory of relativity, which describes gravity as a consequence of a warping of space and time. Ever since, physicists have struggled to understand and test his predictions. That process has led to the discovery of black holes, gravitational waves, and the acceleration of the universe, and, in the Caltech-JPL research community, to powerful tools for probing warped space-time.

For more information, contact Public Events at 1 (888) 2CALTECH, (626) 395-4652, or events@caltech.edu, or visit www.events.caltech.edu. Individuals with a disability can call 395-4688 (voice) or 395-3700 (TDD). The lecture will be available online at Caltech’s Streaming Theater, <http://today.caltech.edu/theater>.

German films are here again

Wieder hier!—“It’s back!” The ever-popular German-language film series has returned for the 2005–06 academic year. All films have English subtitles and show on Fridays at 7:30 p.m. in Baxter Lecture Hall.

Fans from the campus community and the public are welcome to the free screenings, which will each include a postscreening discussion. Held in connection with the German 130 and 132 language classes, the series is sponsored by Caltech lecturer in German Andreas Aebi.

The season began on October 14 with Michael Schorr’s comedy *Schultze Gets the Blues* (2003), and the next film, on November 18, will be *Mostly Martha* (2001). Written and directed by Sandra Nettelbeck, the film follows Martha, a chef who has no real life outside of her work. When her sister’s death brings an eight-year-old niece into her life, and a former work rival befriends the two, Martha is challenged to rethink her attitudes and life choices.

For more information on the series, e-mail aebi@hss.caltech.edu.