### February 6-12, 2006

**Admission charged, Not open to general public.**

All other events are open to members of the University community and the general public free of charge. Any speaker not otherwise identified is a member of the faculty, staff or student body of Princeton University. • Contact Calendar editor • Submissions for future calendars may be made online by completing the calendar submission form. • For copy deadlines, please refer to the PWB deadline schedule.

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**Monday, February 6**

**Arts**

7:30 p.m. Center for Human Values film. Luis Buñuel: "The Discreet Charm of the Bourgeoisie." Josiah Ober, speaker. Theater, Rockefeller and Mathey College.

**Lectures**


6 p.m. School of Architecture lecture. "Playgrounds." Luis Mansilla and Emilio Tuñón, Mansilla + Tuñón Arquitectos, Madrid. Betts Auditorium, School of Architecture.

**Notices**

G 4:30 p.m. Faculty meeting. 101 McCormick.


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**Tuesday, February 7**

**Arts**


**Lectures**


4:30 p.m. Mathematics algebraic geometry seminar. Grigory Mikhalkin, University of Toronto. 322 Fine.

4:30 p.m. Operations research and financial engineering seminar. "Detecting Changes in the Rate of a Poisson Process." George Moustakides, University of Thessaly, Greece. E219 Engineering Quadrangle.

4:30 p.m. Woodrow Wilson School/graduate career services lecture. "Business and Finance at
JANUARY

Special Seminar
Topic: Symmetric tensors and enumeration of Hamiltonian cycles in graphs
Presenter: Peter Zograf, Steklov Mathematical Institute
Date: Friday, January 20, 2006, Time: 2:15 p.m., Location: Fine Hall 314
Abstract: A Hamiltonian cycle is a closed path that traverses each vertex of a graph exactly once. The problem of finding a Hamiltonian cycle in a graph is a well known NP-hard problem, a discrete relative of the famous Traveling Salesman Problem. Even to decide whether a graph contains a Hamiltonian cycle (without actually finding it) is computationally NP-hard. This talk will explain how one can enumerate Hamiltonian cycles in a graph by contracting certain symmetric tensors along the edges of the graph. The method is rather general and applies to other enumeration problems in graphs, like edge colorings, perfect matchings, etc.

Analysis Seminar *** Please note special date
Topic: The structure of entropy solutions of nonlinear scalar conservation laws
Presenter: Felix Otto, Institute for Applied Mathematics, University of Bonn
Date: Wednesday, January 25, 2006, Time: 4:00 p.m., Location: Fine Hall 214

Geometric Analysis Seminar
Topic: Holomorphic vector fields and deformation rigidity
Presenter: Ngaiming Mok, The University of Hong Kong
Date: Friday, January 27, 2006, Time: 3:00 p.m., Location: Fine Hall 314

FEBRUARY

Algebraic Geometry Seminar
Topic: TBA
Presenter: G. Mikhalkin, University of Toronto
Date: Tuesday, February 7, 2006, Time: 4:30 p.m., Location: Fine Hall 322

Operation Research and Financial Engineering Seminar
Topic: Detecting changes in the rate of a Poisson process
Presenter: George Moustakides, University of Thessaly
Date: Tuesday, February 7, 2006, Time: 4:30 p.m., Location: Room E-219, Engineering Quad
Abstract: We consider the Cumulative Sum (CUSUM) test as a possible candidate to sequentially detect a change in the rate of a homogeneous Poisson process. We first derive a closed form
expression for the average run length of the CUSUM stopping time, which we then use to prove optimality of the CUSUM test in the sense of Lorden. Specifically, we demonstrate that the CUSUM stopping time minimizes the maximal possible conditional detection delay under the constraint, that the average period between false alarms is no less than a prescribed value.

**Geometric Analysis Seminar**
Topic: TBA
Presenter: Christina Sormani, City University of New York
Date: Friday, February 10, 2006, Time: 3:00 p.m., Location: Fine Hall 314

**PACM Seminar**
Topic: Fault-Tolerant Quantum Computation
Presenter: Barbara Terhal, IBM
Date: Monday, February 13, 2006, Time: 4:00 p.m., Location: Fine Hall 214
Abstract: I will review the theory of fault-tolerant quantum computation and the use of quantum error-correcting codes in future quantum computers. I will discuss the most recent developments in this area.

**Algebraic Geometry Seminar**
Topic: TBA
Presenter: V. Alexeev, University of Georgia
Date: Tuesday, February 14, 2006, Time: 4:30 p.m., Location: Fine Hall 322

**Operation Research and Financial Engineering Seminar**
Topic: TBA
Presenter: Michael Overton, New York University
Date: Tuesday, February 14, 2006, Time: 4:30 p.m., Location: Room E-219, Engineering Quad

**Geometric Analysis Seminar**
Topic: TBA
Presenter: Natasa Sesum, Columbia University
Date: Friday, February 17, 2006, Time: 3:00 p.m., Location: Fine Hall 314

**PACM Seminar**
Topic: Math Problems from the Far Side of Quantum Information
Presenter: Christopher A. Fuchs, Bell Labs, Lucent Technologies
Date: Monday, February 20, 2006, Time: 4:00 p.m., Location: Fine Hall 214
Abstract: The field of Quantum Information has recently rightly attracted great interest for the technological fruits it may bear. But there is a sect of its practitioners who think it stands a chance to bring us much more than that—namely, that its theoretical tools will give us a means for exploring what quantum mechanics is really all about and for settling some of the deepest problems in physics. The roots of this optimism come from a very old thought: that a quantum state has more to do with representing its user's information, than any inherent physical