

## News & Events in Physics

### BREAKFAST LECTURE SERIES: CONRAD & WINN

**Professor Janet Conrad** gave a breakfast talk on September 11, 2009, at the MIT Faculty

Club. Janet's talk was titled "Neutrinos in the Mist." Janet has been setting up a lab to develop a new type of neutrino detector that relies on liquid argon. In attendance were **Neil Pappalardo, Britt d'Arbeloff, Robert Beckwith** and **Cumrun Vafa**. The spring speaker was **Professor Joshua Winn**, who spoke



*Britt d'Arbeloff and Robert Beckwith.*

on April 15, 2010, about exoplanets. It was only 15 years ago that astronomers began routinely finding planets around stars other than the Sun ("exoplanets"). Josh explained how over 300 exoplanets have been discovered thus far, and the prospects for discovering truly Earth-like planets that may be capable of supporting life.

### PAPPALARDO DISTINGUISHED LECTURE IN PHYSICS

**Neil and Jane Pappalardo** hosted the Pappalardo Distinguished Lecture in Physics

on October 15, 2009. **Paula Apsell**, Senior Executive Producer, NOVA, and Director of the WGBH-TV Science Unit, spoke about the "Art of Science Television." **Sheldon Apsell, Tom Frank, Curt and Kathy Marble**, and **Eric and Helga Cosman** were in attendance, as were Paula's colleagues from NOVA.



*(From left) Neil Pappalardo '64 EE; Jon Abbott, President & CEO, WGBH-TV Boston; Paula Apsell; Sheldon Apsell '65; and Jane Pappalardo.*

The Pappalardo Distinguished Lecture in Physics was established in 1999 in honor of Neil and Jane Pappalardo, friends of the Department of Physics who believe in broadening scientific frontiers for the good of humanity.

On December 3, 2009, **Mark and Annette Siegel** hosted a dinner for **Ed Bertschinger**, Physics Department Head, at their home in Portola Valley, CA. Ed spoke about “MIT, Physics, and Lifelong Learning.” In attendance were **George Elbaum and Mimi Jensen, John Berg and Suzanne Attenborough, Paul and Lilah Newton, Jim and Nancy Spencer, Josephine Jimenez, Hiroshi Menjo, George and Judi Pittman, Rick and Ann Tavan, Steve and Diana Halprin and John Tsai.**

Mark also hosted a breakfast the next day at the Quadrus Conference Center, and Ed gave a talk titled, “Searching for the Origin of Mass at the Large Hadron Collider,” with over 100 alumni and friends in attendance.

## ( MARK SIEGEL '90 HOSTS ED BERTSCHINGER IN NOCAL



*(From left) Mark and Annette Siegel with Ed Bertschinger.*

The MIT **Pappalardo Fellowships in Physics**, a premier postdoctoral fellowship program of the international physics community, completed its 11th annual competition in January 2010 with the acceptance of three new fellows for the 2010–2013 appointment cycle: **Kirill Korolev** (biophysics/soft condensed matter theory), a 2010 Ph.D. from Harvard University; **Karen Michaeli** (hard condensed matter theory), a recent Ph.D. from Israel’s Weizmann Institute of Science; and **Simona Vegetti** (theoretical astrophysics), a 2010 Ph.D. from the University of Groningen, The Netherlands.

## ( 2010–2013 PAPPALARDO FELLOWSHIPS IN PHYSICS COMPETITION



*Kirill Korolev*



*Karen Michaeli*



*Simona Vegetti*

Detailed biographies, including research descriptions and publications for all Pappalardo Fellows (present, incoming and former), are available on [web.mit.edu/physics/research](http://web.mit.edu/physics/research). The MIT Pappalardo Fellowships in Physics program was initiated, and is sustained, by funds generously provided by **Neil and Jane Pappalardo.**

### ED BERTSCHINGER TRAVELS TO SoCAL

*Ed Bertschinger (left)  
with Bob Johnson*



On March 7–9, 2010, Ed Bertschinger traveled to Southern California to meet with alumni and friends. He spoke about the Large Hadron Collider and gave updates on the Physics Department. The following alumni introduced Ed at the events: **William Ladd** in La Jolla, **Arthur White** in Pasadena, **Andrea Ghez** in Los Angeles, and **Bob Johnson** in Santa Barbara.

### 5TH ANNUAL PATRONS OF PHYSICS FELLOWS DINNER

The Department celebrated its fifth annual Patrons of Physics Fellows Dinner on April 9, 2010. Over 70 guests gathered for a dinner and reception in the Green Center's Pappalardo Community room. **Duncan Ralph**, a **2009–2010 Whiteman Fellow**, **Josephine Suh**, a **2009–2010 Marble Presidential Fellow**, and **Ben Jones**, a **2009–2010 Frank Fellow**, were all student presenters. They spoke about their passion for physics and research interests, and thanked their donors as well as all donors of the Patrons Society for making fellowship support possible. This event is a wonderful opportunity for the students to get to know the donors who are supporting them. **George Elbaum**, founding member, concluded the evening with remarks on his own fellowship as a student, and read inspiring statements by his students. Patron donors and friends who attended included **George Elbaum**, his wife **Mimi Jensen**, **Jordan and Sarah Elbaum**, **Jim and Sylvia Earl**, **Jessica Boldt and Ariel Sokol**, **Tom Frank**, **Curt Marble** and **Howard and Colleen Messing**.



*(From left) Sylvia and Jim Earl, Dean Marc Kastner, Mimi Jensen, George Elbaum and Marcia Kastner at the Patrons of Physics Fellows dinner.*



*George Elbaum and Mimi Jensen, with their son Jordan Elbaum, and the Whiteman Fellows.*

by Sara Campbell SB '10  
Vice-President, MIT Society of Physics Students

## PHYSICS ROCKS!

On Sunday, May 9, 2010, the **Society of Physics Students** organized the first physics department rock concert, an epic evening where students and professors left their offices and labs to showcase their musical talent and rock out to some of their favorite tunes. The emcees for the event were Laboratory for Nuclear Science (LNS) celebrities **Profs. Peter Fisher** and **Christoph Paus**, who dressed in swanky black suits and sunglasses as the “Professors in Black.”



All photos by Aditi Verma, The Tech

The opening act was *The Quantum Beats*, a classic rock band composed of **Axel Schmidt** (G) on guitar and vocals, **Ben Sena** (SB '13) on mandolin, **Michael Grinich** (SB '11) on guitar, drums and vocals, **Charles Epstein** (SB '13) on guitar, and **LNS Director Prof. Richard Milner** on guitar.

Next, **Prof. Vladan Vuletic** and his wife, tango instructor **Simonida Chekovic-Vuletic**, performed an elegant tango. They seamlessly moved about the stage, their steps graceful and perfectly in sync. Following came **Dianna Cowern** (SB '11), in a tribute to what the Professors in Black called “the most mysterious of Nature’s forces,” singing a brilliant rendition of “Gravity” by Sara Bareilles.

The line-up continued with **Yan Zhu** (SB '12), **Cappie Pomeroy** (SB '13) and **Scott Johnston** (SB '13), performing a “quantum uncertainty mystery” song in two parts, most notably, “The 8.04 Blues.” The event’s second dance

(Clockwise, from upper left)  
Profs. Peter Fisher (left) and Christoph Paus, aka “The Professors in Black”; Axel Schmidt (left), Michael Grinich (center) and Prof. Tali Figueroa-Feliciano (right); Prof. Vladan Vuletic and Simonida Chekovic-Vuletic; Elizabeth Maroon; Yelena Bagdasarova; Prof. Martin Zwiernlein.

act followed, starring **Javier Sanchez-Yamagishi** (G), who popped, locked and glided about the floor.

The Physics Rock Concert's final, rocking act was the band *Asymptotic Freedom*, with **Yelena Bagdasarova** (SB '10) and **Elizabeth Maroon** (SB '10) on vocals, **Prof. Tali Figueroa-Feliciano** on drums and flute, **Prof. Alexander van Oudenaarden** on electric guitar, **Prof. Martin Zwierlein** on keyboard, and **Jeff Chabot** (PhD '05) on bass. During the intermission act, **Javier Duarte** (SB '10) unlocked the key to successfully performing a backflip, once he understood that he could tuck his legs in "to decrease his moment of inertia and increase his angular velocity." At the close of the event with its many displays of talent and groove, **Prof. Christoph Paus** took out a memory-erasing device (that looked suspiciously like a digital camera), deciding it was wiser "to erase the audience's memory." It was surely a night to remember! (Or forget!)

*Ed. Note: For those opposed to the questionable ethics of "memory erasers," Asymptotic Freedom's cover of Alanis Morissette's Ironic can be seen on YouTube at <http://www.youtube.com/watch?v=doiEPWlcltA>.*

### 9TH ANNUAL PAPPALARDO FELLOWSHIPS IN PHYSICS SYMPOSIUM

The Department's prestigious postdoctoral fellowship program, the **Pappalardo**

**Fellowships in Physics**, held its 9th annual symposium on May 14, 2010, featuring public talks by five of its outstanding young physicists. Attended by a broad cross-section of members and friends of the MIT physics community, featured speakers included Fellows **Paul Chesler** (nuclear and particle theory), **Jeff Gore**—now a faculty member in the Department (biophysics), **David Hsieh** (experimental condensed matter), **Yusuke Nishida** (nuclear and particle theory), and **Paola Rebusco** (theoretical astrophysics). Among the audience were program founder and benefactor **Neil Pappalardo and his wife Jane**, their son **Michael Pappalardo**, their son-in-law author **Todd Lemke**, and longstanding Department friends Meditech CEO **Howard Messing and his wife Colleen**.

For more information on all aspects of the Pappalardo Fellowships in Physics program, please visit [web.mit.edu/physics/research](http://web.mit.edu/physics/research).