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<tr>
<th>Time</th>
<th>Room</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>9am</td>
<td>32-044 B</td>
<td>Alan Anderson (1)</td>
<td>The Power of Parallel Computing</td>
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<td>Angela Chang (1)</td>
<td>Connecting the Dots (sort of): How 3D Graphics Are Created From Stuff You Already Know</td>
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<td>Christopher Cheng (1)</td>
<td>Lights, Camera, Animation?</td>
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<td>Nicholas Joliat (1)</td>
<td>I Don’t Know How to Solve a Rubik’s Cube—but My Computer Does!</td>
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<td>9am</td>
<td>32-044 F</td>
<td>Jacky Cheng (17)</td>
<td>Poker? But I…: Bayesian Inference Applied to Gambling</td>
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<td>David Backus* (17)</td>
<td>From Electricity to Motion: The Basics of DC Electric Motors</td>
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<td>Vijay Umphathy (17)</td>
<td>Sampling: Signals, Trickery, and Good Music</td>
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<td>Letitia Li (17)</td>
<td>Error Correction Codes: Talking Around Noise</td>
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<td>Martin Couturier* (14)</td>
<td>How Movie and Video Game Characters Are Generated</td>
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<td>Andrew Hsiao (14)</td>
<td>Genetic Algorithms: Evolution Version 2.0</td>
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<td>An Li (14)</td>
<td>Redundancy and Error Detection</td>
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<td>Alexander Lue (14)</td>
<td>How to Destroy an Economy</td>
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<td>Zvital Metreveli (14)</td>
<td>How Can Machines Make Decisions</td>
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<td>Digital to Analog Signals</td>
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<td>Mariko Melnick (3)</td>
<td>Can’t Count It? Then Count Something Else! (Solving Math Problems with Mapmings)</td>
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<td>Rajeev Nayak* (3)</td>
<td>Binary Search Trees: A Quick Way to Find What You Want</td>
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<td>Anh Nguyen (3)</td>
<td>How Machine Predicts Future</td>
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<td>Noah Shierman (3)</td>
<td>Introduction to Digital Electronics: How Do Circuits Perform Computation?</td>
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<td>12pm</td>
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<td>Brian Wheeler (7)</td>
<td>“Professor, problem 3 takes like a billion years to do. Seriously”—Computational Complexity</td>
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<td>Tony Liu* (7)</td>
<td>Randomness: Can Computers Actually Flip Coins?</td>
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<td>James Ostrowski (7)</td>
<td>Instructions: Letting You Do a Lot while Knowing Only a Little</td>
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<td>Nathan Seranno (7)</td>
<td>Mobile Robots Change (Their View of) the World</td>
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<td>Mark Sullivan (7)</td>
<td>How to Make a Robot Drive Straight</td>
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<td>Amplify Your Volume! Let’s Get Loud!</td>
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<td>Can Your Computer Find “Ice Cream”?</td>
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Special Thanks to:

Katherine Touafek (Blue Hills)
David Medvitz (Pingree)
Benadette Manning (Fenway)
Dan Ohman (Newman)
Serena Hsu (WholeFoods)
Ben Bradley (MIT PSC)
Grace Cheung (MIT)

Water/ Snacks Donated by:

Whole Foods Market

October 20, 2009
9am-2pm
**Boyuan - 9am**

- Boyuan
- Collin
- Erich
- Ben

- **How to Build a Record Label: Using Cluster Analytics**
  - By Boyuan

- **Wireless Charging**
  - By Collin

- **Music Visualization: The Frequency Domain**
  - By Erich

- **A Polarizing Spectacle**
  - By Ben

- **Frequency Allocation and Wireless Media**
  - By Boyuan

- **Sharing is Caring**
  - By Collin

- **How the Internet Works**
  - By Erich

- **How to Turn a Switch into a Dimmer**
  - By Ben

**Ben - 9am**

- **Microcontrollers: A Special Kind of Computers**
  - By Bill Near

- **Recursion: Solving Hard Problems the Lazy Way**
  - By Mason Tang

- **Strobe Photography: Taking Pictures of Bulbs**
  - By Toan Tran-Phu

- **How Your iPhone's Multi-Touch Screen Works**
  - By Ii-Turbahn

- **Frequency Allocation and Wireless Media**
  - By Boyuan

- **Machines Classify and Learn**
  - By Dmimik Kmka

- **Do You Know Who You're Talking To? Authentication and Trust**
  - By Ruben Perez

- **How Google Maps Gets You from Point A to Point B**
  - By Wesley Graybkill

- **The Perfect Turn – An Introduction to Vehicle Dynamics**
  - By Nicholas Zhender

- **How to Escape a Wall - The Secret of Flash Memory**
  - By Erich Bracht

- **How to Build a Touch Screen**
  - By Joseph Fahey

- **Intricacies of Measurement ...aka Quantum Physics**
  - By Sarang Kulikami

- **Key Distribution Problem: Is Your Key Safe?**
  - By Yi-Hong Kuo

- **Transistors: The Heart of Your Audio Amplifier**
  - By Joyce Kwee

- **How to Find the Right Move: How Computers Beat You at Video Games**
  - By Peter McKee

- **How to Get More: How Computers Beat You at Video Games**
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**Boylan - 10am**

- **Secret Behind Lord of the Rings: How Fuzzy Logic Shaped the Battle of Rohan**
  - By Priya Parayenathil

- **Determining Group Structures Using Clustering**
  - By Michael Bennie

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**Boylan - 11am**

- **6,000,000 Ways to Die**
  - By Dwayne Reeves

- **How to Solve the Rubik’s Cube: A Beginner’s Guide**
  - By Joshua Blichfeld

- **Exotic Space Propulsion Systems**
  - By Dan Stanica

- **Secret Behind Lord of the Rings: How Fuzzy Logic Shaped the Battle of Rohan**
  - By Priya Parayenathil

- **Determining Group Structures Using Clustering**
  - By Michael Bennie

**Erich - 11am**

- **How to Use DuckDuckGo to Find the Internet’s Secrets**
  - By Abraham Rosenfield

- **Breaking Down Problems by Dynamic Programming**
  - By Juchun Shi

- **What is Behind Door Number 3?**
  - By Itai Turbahn

- **Frequency Allocation and Wireless Media**
  - By Boyuan

- **Sharing is Caring**
  - By Collin

- **How Your iPhone's Multi-Touch Screen Works**
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**Erich - 12pm**

- **Finding the Right Move: How Computers Beat You at Video Games**
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- **Robots May Be More Human Than You Think: Neural Nets Explained**
  - By Michael Paul

- **Raytracing: Fake Photons, Real Images**
  - By Ian Smith

- **How to Turn a Switch into a Dimmer**
  - By Karin Liman-Tingari

- **Sensing Using Changes in Capacitance**
  - By Aporiva Murarka

- **Feedback Systems: What Goes Around Comes Around**
  - By Miguel Perez

- **Light: Now You See It, Now You Don’t**
  - By William Thompson

- **Dielectrophoresis**
  - By Jing Wang

**Ben - 1pm**

- **Finding the Right Move: How Computers Beat You at Video Games**
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  - By Peter McKee

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