

conference.program

3.31.16

9am

Title	Presenter	Notes
PDR 1 + 2	with Emily Zhang	
Understanding the Twin Paradox Through Relativity	Jessica Pointing	14 *
Minimax - How to Use Randomness to Make Decisions	Connor Sell	15
What Makes a Rainbow?	Ethan DiNinno	14
Quantum Mechanics: The Cool Thing To Do	Justin Xiao	14
(no title)	Kevin Wen	16
Twenty Chimneys	with Professor Muriel Medard	
Reading Our Genes: Sequencing DNA	Bryce Hwang	2 *
Zoom vs Distance	Ivan-Tadeu Ferreira-Antunes-Fil	2
Lies, Damned Lies, and Bayesian Probability	Benny Zhang	2
How To Throw An Unforgettable Party	Antoine Nasr	2
The Hodgkin-Huxley Model and Making Friends	Anita Liu	2
Mezzanine Lounge	with Francis Chen	
Netflix & Filtering: Recommender Problems	Sitara Persad	17 *
Animate Cloth and Hair Realistically	Jared Counts	17
How Does Facebook Work?	Matthew Guthmiller	17
How your password stays secret (when your computer is stolen!)	Max Justicz	14
HOX Genes: How to Reverse Engineer a Dinosaur from a Chicken	Kamilla Tekiela	14
Coffeehouse Lounge	with Alex Chumbley & Dr. Jason Miller	
The human ear & radio: what they have in common	Eric Fegan	11 *
Approximating Pi Using Toothpicks: The Buffon Needle Problem	Sarah Shader	11
How Devices on the Internet Communicate: Finding Paths through a Complex Network	Francesca Cicileo	12
How to Get to Space: Rockets, Engines, and Staging	Nicholas McCoy	13
(no title)	Angel Carvajal	13
PDR 4	with Virginia Chiu	
One Bit Two Bit, Red Bit Qubit: Understanding Quantum Computers	Matt Basile	12 *
Saving Time with Shortest Path Algorithms	Antonio Rivera	13
Caching Cache: A Computer's Short Term Memory	Emily Benz	13
Public-Key Cryptography: Sending Secrets the Hard Way	Kevin Kusch	12
Passing Messages Over the Internet	Asya Bergal	12

Title	Presenter	Notes
PDR 1 + 2	with Professor Tim Lu	
How to kick your friends off the Internet: DDoS ins and outs	Everardo Rosales	3 *
Image processing - standing out against the background	Rebekah Cha	3
How Not to Gamble	Or Oppenheimer	3
How to work well with friends	Hongyi Shi	3
(no title)	Alexander Stewart	3
Twenty Chimneys	with Professor Muriel Medard	
How Light Enters the Brain	Amanda Liu	7 *
How Computers Talk	Emily Armstrong	7
(no title)	Kevin Kwok	7
(no title)	Kevin Li	7
What is the fastest way to get around town?	Adrian Mora	7
Mezzanine Lounge	with Francis Chen	
Why We Can't See Through Walls	Devin Morgan	7 *
Electric Motors: Turning Electricity into Motion	Aaron Rose	7
(no title)	Thomas Harris	17
Making The Unknown Known	Kathleen Johnson	17
Interrupts: Ways to Manage Different Hats	David Kang	17
Coffeehouse Lounge	with Alex Chumbley	
Keeping Things In Control	Sara Sinback	1 *
Where am I?: Determining Your Location with Your Phone	Andrew Titus	3
How Do Airplanes Fly?	Alice Zielinski	3
Ordering Pizza and Reliable Communication	Sen Chang	11
Fuzz Testing: Using Monkeys to Find Problems	Lynda Tang	11
PDR 4	with Professor Sangeeta Bhatia	
(no title)	Camilo Ruiz	1 *
Predicting the Future: Markov Chains	John Brown	1
Light Switches and Cheat Codes: One Step at a Time	Timothy Higgins	1
Be Proactive in Dating: The Mating Algorithm Says So	Eric Lau	1
How to Turn Atoms into an Atomic Clock	Catherine Medlock	1

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PDR 1 + 2	with Professor Tim Lu	
Words as vectors: analogies for computers!	Hairuo Guo	4 *
How Drugs Work: What Goes on Inside the Brain	Jasmeet Arora	4
Magnets, How do They Work?	Kevin Chan	4
Can you see my heart beating? Understanding Electrocardiogram	Heejo Keum	4
Ordering Pizza and Reliable Communication	Heeyoon Kim	4
Twenty Chimneys	with Professor Muriel Medard	
Sharing is Caring: Torrents Demystified	Julia Guo	8 *
Turning the real world into 1's and 0's	Amelia Becker	8
Principles of 2D Printing	Tucker Cheyne	8
Tricking users into unintentionally displaying your website.	Will Haack	8
(no title)	Hau Lian	8
Mezzanine Lounge	with Nick Uhlenhuth*	
How the Duck does Autocorrect Work?	Tilly Taylor	13
Fitting More Music on your iPod Using Fourier Transforms	Stephanie Pavlick	8
Not All Infinities Are Created Equal	Gerrod Voigt	16
Hard problems are hard	José Velarde	16
Coffeehouse Lounge	with Alex Chumbley	
Springy Thingies Turned Digital: Cloth Simulation in Computer Graphics	Emily Van Belleghem	4 *
How to Make a "Stupid" Proof	Cristina Mata	4
Coding and Cooking	Phillip Ai	12
Radio Jamming and how to Protect Against it	Alex Huang	11
How Does the Internet Know You Are Human?	Roberto Soto	12
PDR 4	with Professor Luís Velásquez-García	
Quantum Tunneling	Mahmoud Ghulman	10 *
Zero-Knowledge Proof: A Proof without The Real Proof	Laponchai Jirachuphun	10
How to Hide Your Identity Online	Victor Lopez	16
PID Controllers: boat steering and moon landing	Vahid Fazel-Rezai	15
Bézier Curves: How a Simple Plan Wins	Kenny Friedman	15

Title	Presenter	Notes
PDR 1 + 2	with Professor Tim Lu	
Gravitational Waves - Ripples in Spacetime	Jason Liang	5 *
(no title)	Blake Elias	5
Candy Queues: Explaining Internet Access with a Candy Factory	Jeremy Ellison	5
Curing Cancer with Living Drugs	Margaret Guo	5
How your fitness trackers find your Heart Rate	Zixi Liu	5
Twenty Chimneys	with Professor Muriel Medard	
The Button Gmail's Missing: "Compress It"	Nichole Clarke	9 *
MergeSort: putting everything in its place	Lee Gavrin	9
Rockets!	Joe Kusters	9
The Surreal Numbers	Kevin Phillips	9
How tuning a radio works	Allan Sadun	9
Mezzanine Lounge	with Professor Luís Velásquez-García	
(no title)	Arturo Campos	15 *
Bloom Filters. Easily remember something you have seen before.	Donald Little	9
An Inside Look at Counting Cards in Blackjack	Jeremy Bogle	15
The Pigeonhole Principle, Why Perfect File Compression Is Impossible	Deanna Heer	14
(no title)	Matthew Kalinowski	15 >
Coffeehouse Lounge	with Alex Chumbley	
Quantum Superposition: When guessing is good enough	Dencil Wilmot	5 *
What the future sounded like	Alex Souvannakhot	5
How to stream Netflix, FaceTime, and go on Facebook all at the same time	Tamar Weseley	5
(no title)	Colin McDonnell	15
How to End the World	Gabrielle Rivera	9
PDR 4	with Virginia Chiu	
Through the Galactic Looking Glass: How We Can See 13 Billion Years Into the Past and Why That Matters for the GPS in Your Phone	Lily Zhou	13 *
The Transistor	Daniel Moon	13
Real Life Mind Control	Michaela Ennis	13
Prisoner's Dilemma: To Tell or Not to Tell	Morgan O'Brien	13
Max Flow: The Secret to Plumbing and Warfare	Devin Neal	11 >

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How to Build a Supercar	Liza Gaylord	14 *
Over and Over Again: Fractals and Their Applications	Akshay Ravikumar	17
Who should be in charge? Leader election in a distributed network	Barbara Duckworth	15
Counting to Infinity	Weilian Chu	14
Designing Randomness in Video Games	Logan Martin	10
(no title)	Andre Mroz	
Twenty Chimneys	with Dr. Jason Miller & Nikhil	
Don't Jump to Conclusions: Good Statistics Can Lead to Bogus Conclusions	Victoria Xia	11 *
Getting Close Enough to the Point	Emmanuel Fasil	12
(no title)	Andre Walker	10
Writing Better Computer Programs, Automatically	Zachary Neely	10
Hijacking the Immune System	Maria Karelina	10

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