

Presentations in Alphabetical Order by Student

H.III - Chemical Engineering 106 Spalding 2:50 - 3:10 PM	<i>Ioana L. Aanei</i> <i>Thomas C. Hays SURF Fellow</i>	Targeting the HER2 Receptor in Breast Cancer Cells With Multivalent Nanoparticles	Mark E. Davis <i>Warren and Katharine Schlinger Professor of Chemical Engineering</i> Chung Hang J. Choi <i>Graduate Student in Chemical Engineering</i>
U.I - Astronomy 228 Baxter 10:20 - 10:40 AM	<i>Sara Ahmed</i>	Analyzing the Performance of the Gattini Antarctic Cameras	Anna M. Moore <i>Instrument Scientist in Astronomy</i>
A.I - Biology 19 Baxter 11:20 - 11:40 AM	<i>Shamili Allam</i> <i>Samuel P. and Frances Krown SURF Fellow</i>	The Role of Sdf1 in Zebrafish Heart Regeneration	Didier Stainier <i>Professor of Biochemistry, University of California, San Francisco</i> Scott E. Fraser <i>Anna L. Rosen Professor of Biology and Professor of Bioengineering</i>
S.I - Geological and Planetary Sciences 306 Firestone 10:00 - 10:20 AM	<i>Mitchel C. Arene</i> <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	Prototyping a GPS-Based Near Real-Time Local Tsunami Early Warning System	Mark Simons <i>Professor of Geophysics</i> Francisco H. Ortega Culaciati <i>Graduate Student in Geophysics</i>
P.III - Computer Science 100 Powell-Booth 2:30 - 2:50 PM	<i>Hyun Ji Bae</i>	Algorithmic Game Theory Approach to the Subgraph Isomorphism Problem	Chris M. Umans <i>Associate Professor of Computer Science</i> David I. Buchfuhrer <i>Graduate Student in Computer Science</i>
N.II - Bioengineering 228 Baxter 1:40 - 2:00 PM	<i>Jee Su Baek</i> <i>W.H. Halpenny SURF Fellow</i>	Valveless Impedance Pump Characterization	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Professor of Bioinspired Engineering</i> Derek G. Rinderknecht <i>Postdoctoral Scholar in Bioengineering</i>
W.III - Mathematics 206 Thomas 2:30 - 2:50 PM	<i>Ana S. Balibanu</i>	p-Homogeneous Finite Groups	Michael Aschbacher <i>Shaler Arthur Hanisch Professor of Mathematics</i>

D.III - Biology 127 Baxter 2:50 - 3:10 PM	Gal Barak <i>Nellie Bergen and Adrian Foster Tillotson SURF Fellow</i>	What is the "Natural" Speed of Reaching Movements?	Pietro Mazzoni <i>Assistant Professor, Center for Parkinson's Disease and Other Movement Disorders, Columbia University</i> Richard A. Andersen <i>James J. Boswell Professor of Neuroscience</i>
S.II - Geological and Planetary Sciences 306 Firestone 2:00 - 2:20 PM	Allison H. Barnes <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	Seismic Geomorphology of the Kumano Forearc Basin, Japan	Gregory F. Moore <i>Professor of Marine Geophysics, University of Hawaii</i> Joann M. Stock <i>Professor of Geology and Geophysics</i>
T.II - Humanities and Social Sciences 210 Baxter 2:00 - 2:20 PM	Alexander T. Bea Middlebury College	Individual Fishing Quotas	John O. Ledyard <i>Allen and Lenabelle Davis Professor of Economics and Social Sciences</i>
F.I - Chemistry 237 Baxter 10:00 - 10:20 AM	Donatela E. Bellone <i>Rossum Family SURF Fellow</i>	Progress Towards the Syntheses of Tripodal Tris(diphenylphosphino) Co(I/II) Complexes for Functionalization of Si(111) Surfaces	Harry B. Gray <i>Arnold O. Beckman Professor of Chemistry</i> Michael J. Rose <i>Postdoctoral Scholar in Chemistry</i>
O.I - Computer Science 120 Powell-Booth 10:40 - 11:00 AM	Christopher G. Berlind <i>Captain Pradeep B. Suklikar Memorial SURF Fellow</i>	Analysis and Design of Nucleic Acid Systems via Kinetic Simulations	Erik Winfree <i>Associate Professor of Computer Science, Computation and Neural Systems, and Bioengineering</i> Joseph M. Schaeffer <i>Graduate Student in Computer Science</i>
W.I - Mathematics 206 Thomas 10:40 - 11:00 AM	Tanvir Ahamed Bhuyain	The Ricci Flow on Noncommutative Two Tori	Matilde Marcolli <i>Professor of Mathematics</i>
C.II - Biology 125 Baxter 2:00 - 2:20 PM	Evan R. Biggs <i>Richter Scholar</i>	Optimization of Ex Vivo Conditions for Primate Pancreatic Islet Culture	Charles T. Roberts <i>Associate Director and Senior Scientist, Oregon National Primate Research Center</i> Ellen Rothenberg <i>Albert Billings Ruddock Professor of Biology</i>
X.I - Physics 301 Thomas 11:00 - 11:20 AM	Gary A. Binder <i>Mellon Mays SURF Fellow</i>	The Importance of Compact- Object Spin in Extreme-Mass- Ratio Inspirals	Marc Favata <i>Visitor in Physics</i> Yanbei Chen <i>Assistant Professor of Physics</i>

S.I - Geological and Planetary Sciences 306 Firestone 11:20 - 11:40 AM	<i>Daniel Christopher E. Blado</i>	Evidence for a Possible Cosmic Event at ~84Ma From Extraterrestrial ^3He in Seafloor Sediments	Ken A. Farley <i>W.M. Keck Foundation Professor of Geochemistry</i>
G.III - Chemistry 102 Spalding 2:50 - 3:10 PM	<i>Brianne M. Blakesley</i>	Synthesis and Evaluation of DNA-Binding Polyamides	Peter B. Dervan <i>Bren Professor of Chemistry</i> Jordan L. Meier <i>Postdoctoral Scholar in Chemistry</i>
W.II - Mathematics 206 Thomas 1:00 - 1:20 PM	<i>Jason C. Bland</i>	Representations of the Symplectic Group	Elena Mantovan <i>Assistant Professor of Mathematics</i>
B.II - Biology 25 Baxter 1:00 - 1:20 PM	<i>Michelle E. Bobrow</i>	Using Insulators to Improve Expression of a Gene Drive System in <i>Drosophila melanogaster</i>	Bruce A. Hay <i>Professor of Biology</i> Geoffrey W. Pittman <i>Postdoctoral Scholar in Biology</i>
J.III - Applied and Computational Mathematics 120 Powell-Booth 3:10 - 3:30 PM	<i>Anton M. Bongio Karrman</i> <i>Hannah Bradley SURF Fellow</i>	Generalized Polarization Tensors With Applications to Direct and Inverse Problems	Yves Capdeboscq <i>Lecturer, Mathematical Institute, University of Oxford</i> Guo Luo <i>von Kármán Instructor of Applied and Computational Mathematics</i>
Y.I - Physics 306 Thomas 10:40 - 11:00 AM	<i>Michael A. Borisov</i> <i>Arthur Rock SURF Fellow</i>	Developing Polymer-Actuated Microfluidic Valves for Portable Applications	Michael L. Roukes <i>Professor of Physics, Applied Physics, and Bioengineering</i>
W.I - Mathematics 206 Thomas 10:20 - 10:40 AM	<i>Zarathustra E. Brady</i>	Random Branched Covers of the Riemann Sphere	Tom B. Graber <i>Professor of Mathematics</i>
L.I - Applied Physics 102 Steele 10:40 - 11:00 AM	<i>Maxwell B. Bryk</i>	Optimizing the Efficiency of Nanowire Photovoltaics	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Daniel Turner-Evans <i>Graduate Student in Applied Physics</i>
T.I - Humanities and Social Sciences 210 Baxter 10:40 - 11:00 AM	<i>Nicholas S. Buckley</i> <i>Samuel P. and Frances Krown SURF Fellow</i>	Using tDCS to Study the Role of the MPFC in Intertemporal Choice	Antonio Rangel <i>Professor of Economics</i>

X.I - Physics
301 Thomas
10:40 - 11:00 AM

Nina B. Budaeva
*Dr. and Mrs. Lew Allen, Jr.,
SURF Fellow*

Investigating Graphite

James P. Eisenstein
*Frank J. Roshek Professor of
Physics and Applied Physics*
Debaleena Nandi
Graduate Student in Physics

S.II - Geological and
Planetary Sciences
306 Firestone
1:00 - 1:20 PM

Peter B. Buhler
Richter Scholar

Timescales of Fluvial Activity
on Ancient Mars

James W. Head
*Professor of Geology, Brown
University*
Caleb I. Fassett
*Postdoctoral Research Associate
in Geology, Brown University*
Michael P. Lamb
Assistant Professor of Geology

B.I - Biology
25 Baxter
10:40 - 11:00 AM

Vanessa M. Burns
Amgen Scholar

Engineering Optogenetic
Feedback Control of Cell-Fate
Decisions in *Bacillus subtilis*

Michael B. Elowitz
*Associate Professor of Biology
and Bioengineering;
Investigator, Howard Hughes
Medical Institute*
Joe Levine
*Graduate Student in
Computation and Neural
Systems*

R.I - Materials Science
214 Steele
10:20 - 10:40 AM

Can W. Cai
Donald S. Clark SURF Fellow

Investigating Mechanical
Properties of Nanocrystalline
Materials on the Nanometer
Scale

Julia R. Greer
*Assistant Professor of Materials
Science*
Dongchan Jang
*Postdoctoral Scholar in
Materials Science*

A.III - Biology
19 Baxter
2:30 - 2:50 PM

Yi Cai

Characterizing Gene
Expression for the Evolution
of Embryonic Morphology in
Sea Urchins

Eric H. Davidson
*Norman Chandler Professor of
Cell Biology*
Eric M. Erkenbrack
Graduate Student in Biology

Poster Session
San Pasqual Mall
3:45 - 5:00 PM

Juan D. Caporale
Class of '36 SURF Fellow

Energy Transfer During the
Impact of a Single, High-
Velocity, Liquid Droplet on a
Surface

Guillaume Blanquart
*Assistant Professor of
Mechanical Engineering*

T.II - Humanities and
Social Sciences
210 Baxter
1:00 - 1:20 PM

Alejandro U. Carbonara
*Bob and Carole Chapman
Minority SURF Fellow*

A Practical Simulation for
Learning Optimal Auction
Strategies

John O. Ledyard
*Allen and Lenabelle Davis
Professor of Economics and
Social Sciences*

H.I - Chemical Engineering 106 Spalding 11:20 - 11:40 AM	<i>Deboki Chakravarti</i> <i>The Associates SURF Fellow</i>	Identifying Sectors of Co-Evolving Residues Within gp120 and gp41 in HIV-1	Arup K. Chakraborty <i>Robert T. Haslam Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Pamela J. Bjorkman <i>Max Delbrück Professor of Biology; Investigator, Howard Hughes Medical Institute</i>
H.I - Chemical Engineering 106 Spalding 10:00 - 10:20 AM	<i>Jacqueline Chan</i> <i>Hannah Bradley SURF Fellow</i>	Improving the Toughness of Protein Hydrogels With the NGBC System	Bradley D. Olsen <i>Assistant Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Matthew J. Glassman <i>Graduate Student in Chemical Engineering, Massachusetts Institute of Technology</i> David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i>
T.III - Humanities and Social Sciences 210 Baxter 3:10 - 3:30 PM	<i>Arjun S. Chandar</i>	The Influence of American Politics on Modern Christianity	Erik Snowberg <i>Assistant Professor of Economics and Political Science</i>
P.II - Computer Science 100 Powell-Booth 1:00 - 2:00 PM (group presentation)	<i>Rishi J. Chandy</i> <i>Arthur R. Adams SURF Fellow</i>	Bayesian Inference for the Community Seismic Network	R. Andreas Krause <i>Assistant Professor of Computer Science</i>
Y.II - Physics 306 Thomas 1:00 - 1:20 PM	<i>Christine H. Chang</i>	Analysis of Nanoparticles, the λ -Phage, and Protein Dimerization Using Ion Mobility Spectrometry	Michael L. Roukes <i>Professor of Physics, Applied Physics, and Bioengineering</i> Akshay Naik <i>Research Engineer in Condensed Matter Physics</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Adrian K. Chapman</i> <i>Caltech-IIT Kanpur Exchange</i>	The Effect of Sub-Dominant Foreground Components on Observed CMB Anisotropy	Pankaj Jain <i>Professor of Physics, Indian Institute of Technology, Kanpur</i>
L.II - Applied Physics 102 Steele 1:00 - 1:20 PM	<i>Clare H. Chen</i> <i>The Aerospace Corporation SURF Fellow</i>	Multifunctional Nanoparticle Networks for Thin Film Solar Cells	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Jeremy N. Munday <i>Postdoctoral Scholar in Applied Physics</i>

J.III - Applied and Computational Mathematics 120 Powell-Booth 2:50 - 3:10 PM	<i>Fei Chen</i> <i>Amgen Scholar</i>	Fluorescent In Situ Hybridization Chain Reaction for MicroRNAs	Niles A. Pierce <i>Associate Professor of Applied and Computational Mathematics and Bioengineering</i> Harry M. Choi <i>Research Scientist in Bioengineering</i>
P.I - Computer Science 100 Powell-Booth 11:20 - 11:40 AM	<i>Janet Chen</i>	Uncertainty Quantification in the Modeling and Analysis of Impacts	Mark Stalzer <i>Faculty Associate in Computing and Mathematical Sciences; Executive Director of CACR</i> Michael McKerns <i>Project Manager in Materials Science</i>
D.II - Biology 127 Baxter 1:20 - 1:40 PM	<i>John L. Chen</i>	State Specific Sensory Modulation and <i>C. elegans</i> Behavior	Paul W. Sternberg <i>Thomas Hunt Morgan Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Julie Y. Cho <i>Graduate Student in Biology</i>
C.II - Biology 125 Baxter 1:40 - 2:00 PM	<i>Rebecca P. Chen</i> <i>William H. and Helen Lang SURF Fellow</i>	Regulation of Huntingtin Cleavage by IKK β	Paul H. Patterson <i>Anne P. and Benjamin F. Biaggini Professor of Biological Sciences</i> Ali Khoshnan <i>Senior Research Fellow in Biology</i>
Q.I - Electrical Engineering/ Applied Physics 125 Steele 10:40 - 11:00 AM	<i>Samson Chen</i> <i>William Hassenzahl Family SURF Fellow</i>	Micro-Scaled and Nano- Scaled Platinum Sensors	Axel Scherer <i>Bernard A. Neches Professor of Electrical Engineering, Applied Physics, and Physics</i> Aditya Rajagopal <i>Graduate Student in Electrical Engineering</i>
L.III - Applied Physics 102 Steele 2:50 - 3:10 PM	<i>Linlin Cheng</i> <i>Richter Scholar</i>	Optimizing a Ridge Waveguide Structure for Coupling With a Tunable "Zipper" Cavity	Oskar J. Painter <i>Associate Professor of Applied Physics</i> Justin D. Cohen <i>Graduate Student in Physics</i>

Y.I - Physics 306 Thomas 11:00 - 11:20 AM	Abraham Chien <i>The Aerospace Corporation SURF Fellow</i>	Fabrication and Characterization of Graphene NEMS Switches and Resonators	Michael L. Roukes <i>Professor of Physics, Applied Physics, and Bioengineering</i> Philip X.L. Feng <i>Senior Staff Scientist in Physics</i> Peter Hung <i>Graduate Student in Applied Physics</i>
G.II - Chemistry 102 Spalding 1:40 - 2:00 PM	Amie F. Chin <i>William N. Lacey SURF Fellow</i>	Modular Synthesis of Olefin- Oxazoline (Olefox) Ligands and Application in Enantioselective Allylation Reactions	Brian M. Stoltz <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry</i> Allen Y. Hong <i>Graduate Student in Chemistry</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Sandeep P. Chinchali	FPGA Based Router and Kalman Filter Algorithm for Neuromorphic Hardware	Kwabena Boahen <i>Associate Professor of Bioengineering, Stanford University</i> Dan Neil <i>Research Assistant in Life Sciences, Stanford University</i> Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i>
Y.II - Physics 306 Thomas 1:40 - 2:00 PM	Abhiram A. Chivukula <i>Ernest R. Roberts SURF Fellow</i>	Gravity as an Entropic Phenomenon	John H. Schwarz <i>Harold Brown Professor of Theoretical Physics</i>
P.I - Computer Science 100 Powell-Booth 10:00 - 10:40 AM (joint presentation)	Sean S. Choi <i>Rose Hills Foundation SURF Fellow</i>	A Low Budget Engine for Radiation Detection	K. Mani Chandy <i>Simon Ramo Professor and Professor of Computer Science</i>
R.I - Materials Science 214 Steele 11:20 - 11:40 AM	Yeojun Chun <i>Richter Scholar</i>	Electron Mobility of a Suspended Graphene Nanoribbon	Julia R. Greer <i>Assistant Professor of Materials Science</i> Mingyuan Huang <i>Postdoctoral Scholar in Materials Science</i>
H.I - Chemical Engineering 106 Spalding 10:40 - 11:00 AM	Emmet M. Cleary <i>Rose Hills Foundation SURF Fellow</i>	Ray Tracing Through Silicone Solar Concentrators	Richard C. Flagan <i>Irma and Ross McCollum- William H. Corcoran Professor of Chemical Engineering and Professor of Environmental Science and Engineering</i> Tristan Day <i>Graduate Student in Chemical Engineering</i>

W.III - Mathematics 206 Thomas 2:50 - 3:10 PM	Emma G. Cohen <i>Samuel P. and Frances Krown SURF Fellow</i>	On the Tree Packing Conjectures	Niranjan Balachandran <i>Harry Bateman Research Instructor of Mathematics</i>
L.I - Applied Physics 102 Steele 11:00 - 11:20 AM	Arianne X. Collopy	Polycrystalline Silicon Templates for Epitaxial Crystalline Thin-Film Solar Cells	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Michael G. Deceglie <i>Graduate Student in Applied Physics</i>
S.III - Geological and Planetary Sciences 306 Firestone 2:30 - 2:50 PM	Nadine P. Currie	The Chemistry and Physics of the Outer Circumstellar Disk	Geoffrey A. Blake <i>Professor of Cosmochemistry and Planetary Sciences and Professor of Chemistry</i>
W.III - Mathematics 206 Thomas 3:10 - 3:30 PM	Megan R. Cutrofello <i>Hannah Bradley SURF Fellow</i>	List-Coloring Graphs on the Torus Given Certain Chromatic Numbers	Niranjan Balachandran <i>Harry Bateman Research Instructor of Mathematics</i>
V.II - Astronomy 142 Keck 1:40 - 2:00 PM	Radmila Dancikova	Blazars: The Cosmic Accelerators	S. George Djorgovski <i>Professor of Astronomy</i> Ashish Mahabal <i>Staff Scientist in Computational Astronomy</i>
P.I - Computer Science 100 Powell-Booth 10:00 - 10:40 AM (joint presentation)	Jeremy C. Davis <i>Øistein and Rita A. Skjellum SURF Fellow</i>	A Low Budget Engine for Radiation Detection	K. Mani Chandy <i>Simon Ramo Professor and Professor of Computer Science</i>
M.III - Bioengineering 218 Baxter 2:50 - 3:10 PM	Anik A. Debnath <i>Amgen Scholar</i>	Novel Tools for Analyzing and Comparing Viral Metagenomes	Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i> Arbel D. Tadmor <i>Graduate Student in Biochemistry</i>
V.I - Astronomy 142 Keck 10:20 - 10:40 AM	Colleen R. Delaney <i>Stanley and Chenmei Hsu SURF Fellow</i>	Far Out! Finding Exoplanets in Wide Orbits	John A. Johnson <i>Assistant Professor of Astronomy</i>
L.III - Applied Physics 102 Steele 3:10 - 3:30 PM	Ryan A. Denlinger <i>The Aerospace Corporation SURF Fellow</i>	Influence of van der Waals Forces on Molten Polymer Nanofilms Subject to Thermocapillary Instability	Sandra M. Troian <i>Professor of Applied Physics, Aeronautics, and Mechanical Engineering</i>

F.III - Chemistry 237 Baxter 2:30 - 2:50 PM	Marino Di Franco	Tissue Engineering Through Controlled Cellular Collocation in a 2-D Environment	James R. Heath <i>Elizabeth W. Gilloon Professor and Professor of Chemistry</i> Udi B. Vermesh <i>Graduate Student in Bioengineering</i>
S.II - Geological and Planetary Sciences 306 Firestone 1:40 - 2:00 PM	Matthew R. Diamond <i>Dr. George R. Rossman SURF Fellow</i>	Magnetic Susceptibility of Canning Basin Reef Cores to Better Understand the Late- Devonian Mass Extinction	Joseph L. Kirschvink <i>Nico and Marilyn Van Wingen Professor of Geobiology</i> Timothy D. Raub <i>Postdoctoral Scholar in Geology</i>
B.II - Biology 25 Baxter 1:40 - 2:00 PM	Race E. DiLoreto	The Use of RNA-Seq in Constructing a Synthetic Maternal Selfish Genetic Gene Drive Mechanism in <i>Aedes aegypti</i>	Bruce A. Hay <i>Professor of Biology</i> Kelly J. Dusinger <i>Graduate Student in Biochemistry</i>
G.I - Chemistry 102 Spalding 11:20 - 11:40 AM	Tina X. Ding <i>SURF Board SURF Fellow</i>	Stability Improvement via Solution Based Ga-P Surface Functionalization	Nathan S. Lewis <i>George L. Argyros Professor and Professor of Chemistry</i> Leslie E. O'Leary <i>Graduate Student in Chemistry</i>
X.II - Physics 301 Thomas 1:40 - 2:00 PM	Susan J. Dittmer <i>Thomas Lauritsen SURF Fellow</i>	Search for New Physics in Gamma+Jet Events at the Large Hadron Collider	Harvey B. Newman <i>Professor of Physics</i> Marat I. Gataullin <i>Assistant Scientist in Experimental High Energy Physics</i>
R.III - Materials Science 214 Steele 2:30 - 2:50 PM	Hyung Wan Do	Optimization of Electrospray Deposition via an Aerosol Particle Sizer; Parameter Mapping and Sub 100 nm Feature Size	Sossina M. Haile <i>Professor of Materials Science and Chemical Engineering</i> Aron Varga <i>Graduate Student in Materials Science</i>
K.II - Aeronautics/ Mechanical Engineering 101 Guggenheim 1:40 - 2:00 PM	Hanna M. Dodd <i>Samuel P. and Frances Krown SURF Fellow</i>	Investigating the Feasibility of Water Reuse on the Caltech Campus	Melany L. Hunt <i>Professor of Mechanical Engineering</i> John S. Onderdonk <i>Manager for Sustainability Programs</i>
K.II - Aeronautics/ Mechanical Engineering 101 Guggenheim 2:00 - 2:20 PM	Karen M. Dowling	The Wake of a Circular Cylinder at Moderate Reynolds Number in Non-Newtonian Flow	Steven Ceccio <i>Professor of Mechanical Engineering, University of Michigan</i> Melany L. Hunt <i>Professor of Mechanical Engineering</i>

F.II - Chemistry 237 Baxter 1:20 - 1:40 PM	<i>Samuel S. Elder</i> <i>Samuel P. and Frances Krown SURF Fellow</i>	Asymmetric Catalysis: Synthesis and Characterization of a Chiral Chlorinated Ruthenium Catalyst	Robert H. Grubbs <i>Victor and Elizabeth Atkins Professor of Chemistry; Nobel Laureate</i> Jean Li <i>Graduate Student in Chemistry</i>
I.III - Chemical Engineering 113 Spalding 3:10 - 3:30 PM	<i>Clara H. Eng</i> <i>Professor Fredrick H. Shair SURF Fellow</i>	Synthesis of a Hydrophilic Myristic Acid Analog for Selective N-Terminal Protein Labeling in Bacterial Cells	David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i> Chethana Kulkarni <i>Graduate Student in Chemistry</i>
W.I - Mathematics 206 Thomas 11:20 - 11:40 AM	<i>Christopher E. Estrada</i> <i>Richter Scholar</i>	Spectral Action on a Deformed Product Space	Matilde Marcolli <i>Professor of Mathematics</i>
X.II - Physics 301 Thomas 1:20 - 1:40 PM	<i>Benjamin J. Faber</i> <i>Robert L. Blinkenberg SURF Fellow</i>	Search for the Z' Boson in the LHC Through the $Z' \rightarrow e^+ + e^-$	Harvey B. Newman <i>Professor of Physics</i> Marat I. Gataullin <i>Assistant Scientist in Experimental High Energy Physics</i>
V.II - Astronomy 142 Keck 1:20 - 1:40 PM	<i>Kelvin C. Fang</i>	Automatic Transient Recognition	S. George Djorgovski <i>Professor of Astronomy</i> Ciro Donalek <i>Postdoctoral Scholar in Astronomy</i>
X.I - Physics 301 Thomas 11:20 - 11:40 AM	<i>Chi L. Feng</i>	A Monte Carlo Simulation for Understanding Energy Measurements of Beta Particles Detected by the UCNb Experiment	Brad W. Filippone <i>Professor of Physics</i> Kevin P. Hickerson <i>Graduate Student in Physics</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Matthew K. Fu</i>	Characterization of Trapped Air Phenomenon in Flat Plate Slamming	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Professor of Bioinspired Engineering</i> David S. Jeon <i>Research Engineer in Aeronautics</i>

N.II - Bioengineering
228 Baxter
2:00 - 2:20 PM

Prakriti Gaba
Arthur R. Adams SURF Fellow

Usage of an Industrial
Manipulator for Joint
Biomechanical Testing

Ferdinando Rodriguez y
Baena
*Lecturer in Medical Robotics,
Imperial College London*
Scott E. Fraser
*Anna L. Rosen Professor of
Biology and Professor of
Bioengineering*

Poster Session
San Pasqual Mall
3:45 - 5:00 PM

Meng Ge
David C. Elliot SURF Fellow

The Wage of Whiteness:
A Study of the Segregation
and Occupational Attainment
by Race in the South From
1870 to 1920

Matthew S. Shum
Professor of Economics

B.I - Biology
25 Baxter
10:20 - 10:40 AM

Marvin H. Gee

Binding of Shuttle Receptors
Rad23, Dsk2, and Ddi1 to the
Primary Proteasomal
Component Rpn1

Ray J. Deshaies
*Professor of Biology;
Investigator, Howard Hughes
Medical Institute*
Tara A. Gomez
Graduate Student in Biology

K.I - Aeronautics/
Mechanical Engineering
101 Guggenheim
10:00 - 10:20 AM

Anirban Ghosh
*Dr. Chandler C. Ross
SURF Fellow*

Drag Reduction Using
Superhydrophobic Carbon
Nanotube Arrays

Mory Gharib
*Hans W. Liepmann Professor
of Aeronautics and Professor of
Bioinspired Engineering*
Adrianus I. Aria
*Graduate Student in
Aeronautics*

X.II - Physics
301 Thomas
1:00 - 1:20 PM

Lauren A. Gilbert

Projective and Non-Projective
Crack Simulation in the
Hadron Calorimeter of SiD

Maria Spiropulu
Associate Professor of Physics
Barry C. Barish
*Ronald and Maxine Linde
Professor of Physics, Emeritus*

L.II - Applied Physics
102 Steele
1:40 - 2:00 PM

Casey C. Glick

Integrated Electro-
Microfluidic Pressure Sensors

Stephen R. Quake
*Professor of Bioengineering,
Stanford University*
James A. Weaver
*Research Associate in Electrical
Engineering, Stanford
University*

T.III - Humanities and
Social Sciences
210 Baxter
2:50 - 3:10 PM

Prakhar Goel

Explaining the Differences in
American and European Tax
and Redistribution Rates

Erik Snowberg
*Assistant Professor of
Economics and Political Science*

G.I - Chemistry 102 Spalding 10:20 - 10:40 AM	Andrew J. Gong	Effects of Chalcogen Doping in Large Grain Zinc Phosphide Polycrystalline Wafers	Nathan S. Lewis <i>George L. Argyros Professor and Professor of Chemistry</i> Greg M. Kimball <i>Graduate Student in Chemistry</i>
K.I - Aeronautics/ Mechanical Engineering 101 Guggenheim 10:40 - 11:00 AM	Cody Gonzalez California State Polytechnic University, Pomona	Dynamic Roughness for Control of Laminar Separation on an Airfoil	Beverley J. McKeon <i>Assistant Professor of Aeronautics</i>
S.I - Geological and Planetary Sciences 306 Firestone 10:40 - 11:00 AM	Sarah D. Griffis <i>Richter Scholar</i>	Carbon Monoxide Dynamics in Geothermal Mats and the Earth's Early Atmosphere	Albert S. Colman <i>Assistant Professor of Geophysical Science, University of Chicago</i> Jess F. Adkins <i>Professor of Geochemistry and Global Environmental Science</i>
R.I - Materials Science 214 Steele 10:40 - 11:00 AM	Cameron T. Gross <i>Toni and Bob Perpall SURF Fellow</i>	Enhanced Mechanical Properties of FIB-Less Cu Nanopillars Through Atomic- Layer-Thin Coating	Julia R. Greer <i>Assistant Professor of Materials Science</i> Ju-Young Kim <i>Postdoctoral Scholar in Materials Science</i>
H.II - Chemical Engineering 106 Spalding 2:00 - 2:20 PM	Kevin L. Gu	Microrheology of Colloidal Dispersions With Excluded- Volume Interactions	John F. Brady <i>Chevron Professor of Chemical Engineering and Professor of Mechanical Engineering</i> Roseanna N. Zia <i>Graduate Student in Mechanical Engineering</i>
D.III - Biology 127 Baxter 3:10 - 3:30 PM	Yuzhou Gu <i>Richter Scholar</i>	Systematic Approach to Define a p11-Binding Motif With Peptide Array and Identify Its Novel Regulatory Targets	Paul Greengard <i>Vincent Astor Professor, Laboratory of Molecular and Cellular Neuroscience, Rockefeller University</i> Yong-Seok Oh <i>Research Associate in Molecular and Cellular Neuroscience, Rockefeller University</i> Athanasios Siapas <i>Associate Professor of Computation and Neural Systems</i>

E.II - Chemistry 128 Baxter 1:20 - 1:40 PM	Mengyu Guan	Developing New Rhodium Complexes to Assess the Effects of Tether Length on Biological Activity	Jacqueline K. Barton <i>Arthur and Marian Hanisch Memorial Professor and Professor of Chemistry</i> Curtis J. Schneider <i>Postdoctoral Scholar in Chemistry</i>
C.I - Biology 125 Baxter 10:20 - 10:40 AM	Pallavi K. Gunalan <i>Larson Scholar</i>	The Use of Fluorescence Microscopy to Determine the Interaction of P2X Channels With Nicotinic Receptors	Henry A. Lester <i>Bren Professor of Biology</i> Chris I. Richards <i>Postdoctoral Scholar in Biology</i>
Q.II - Electrical Engineering/Applied Physics 125 Steele 1:40 - 2:00 PM	Luke W. Guo <i>Rose Hills Foundation SURF Fellow</i>	Staining Procedure for Five-Type Leukocyte Differential by Portable Microflow Cytometry	Yu-Chong Tai <i>Professor of Electrical Engineering and Mechanical Engineering</i> Wendian Shi <i>Graduate Student in Electrical Engineering</i>
M.II - Bioengineering 218 Baxter 1:20 - 1:40 PM	Lucas A. Hartsough <i>Stephen Adelman Memorial SURF Fellow</i>	Towards the Production of a 3D Bioplastic Bioprinter Design for a General Printing Framework in <i>E. coli</i> for iGEM 2010	Richard M. Murray <i>Thomas E. and Doris Everhart Professor of Control and Dynamical Systems and Bioengineering</i> Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i> Joseph T. Meyerowitz <i>Graduate Student in Biochemistry</i> Emmanuel Lorenzo C. de los Santos <i>Graduate Student in Bioengineering</i>
F.III - Chemistry 237 Baxter 3:10 - 3:30 PM	Ying Qiao Hee	Synthesis of a Multiligand Against the Cancer-Associated Glycan Sialyl Lewis x	James R. Heath <i>Elizabeth W. Gilloon Professor and Professor of Chemistry</i> Kaycie Butler <i>Graduate Student in Chemistry</i>
M.III - Bioengineering 218 Baxter 2:30 - 2:50 PM	Oskar Hjærtquist Lund University	Origins of Uncertainty in Building Synthetic Genetic Circuits	Richard M. Murray <i>Thomas E. and Doris Everhart Professor of Control and Dynamical Systems and Bioengineering</i> Ophelia Venturelli <i>Graduate Student in Biochemistry and Molecular Biophysics</i>

E.III - Chemistry 128 Baxter 3:10 - 3:30 PM	Wilson C. Ho <i>Richter Scholar</i>	Proteolysis Targeting Peptides: A New Tool for Protein Deactivation	Stephen B. Kent <i>Professor of Biochemistry and Molecular Biophysics, University of Chicago</i> Peter B. Dervan <i>Bren Professor of Chemistry</i>
E.II - Chemistry 128 Baxter 1:40 - 2:00 PM	Kristen M. Holtz	Study of Amino Acids Using Terahertz Time-Domain Spectroscopy	Geoffrey A. Blake <i>Professor of Cosmochemistry and Planetary Sciences and Professor of Chemistry</i> Marco A. Allodi <i>Graduate Student in Chemistry</i>
D.II - Biology 127 Baxter 1:00 - 1:20 PM	Yang Hu <i>Dr. Paraskeva N. Danailov SURF Fellow</i>	Small-Molecule Signals Regulate Gender-Specific and Gender-Nonspecific Attraction in <i>Caenorhabditis elegans</i>	Paul W. Sternberg <i>Thomas Hunt Morgan Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Jagan Srinivasan <i>Postdoctoral Scholar in Biology</i>
R.III - Materials Science 214 Steele 3:30 - 3:50 PM	Yifei Huang	Systematic Fabrication of Porous Anodized Aluminum Oxide (AAO) Membranes With Varied Features	Sossina M. Haile <i>Professor of Materials Science and Chemical Engineering</i> Jaemin Kim <i>Postdoctoral Scholar in Materials Science</i>
X.III - Physics 301 Thomas 2:30 - 2:50 PM	Ran Huo	Maintaining Quantum Coherence Using Quantum Zeno Effect	John Preskill <i>Richard P. Feynman Professor of Theoretical Physics</i> Liang Jiang <i>Sherman Fairchild Postdoctoral Scholar in Theoretical Physics</i>
D.I - Biology 127 Baxter 11:20 - 11:40 AM	Janis I. Intoy	Manipulating Gaze to Influence the Leakage of Attractiveness: Hair and Face	Shinsuke Shimojo <i>Gertrude Baltimore Professor of Experimental Psychology</i> Chihiro Yasutake <i>Visitor in Biology</i>
E.III - Chemistry 128 Baxter 2:30 - 2:50 PM	Nadia Iqbal <i>Richard T. Jones SURF Fellow</i>	Investigation of Inhibitory Mechanism by Bacteriophage Φ 174 Lysis Protein E	William M. Clemons <i>Assistant Professor of Biochemistry</i> Shiho Tanaka <i>Postdoctoral Scholar in Chemistry</i>

F.II - Chemistry 237 Baxter 1:40 - 2:00 PM	<i>Anna S. Ivanova</i> <i>Jack and Edith Roberts SURF Fellow</i>	Synthesis of Novel Cobalt Catalysts for Markovnikov Hydration of Alkenes	Robert H. Grubbs <i>Victor and Elizabeth Atkins Professor of Chemistry; Nobel Laureate</i> Guangbin Dong <i>Postdoctoral Scholar in Chemistry</i>
F.I - Chemistry 237 Baxter 10:20 - 10:40 AM	<i>Megan N. Jackson</i>	Electrocatalytic Carbon-Halogen Bond Formation Using Halide Ions	Harry B. Gray <i>Arnold O. Beckman Professor of Chemistry</i> Alec C. Durrell <i>Graduate Student in Chemistry</i>
A.III - Biology 19 Baxter 3:10 - 3:30 PM	<i>Ning-Jiun Jan</i>	Finding Cis-Regulatory Module (CRM) of SpErg	Eric H. Davidson <i>Norman Chandler Professor of Cell Biology</i> Qiang Tu <i>Senior Research Fellow in Biology</i>
J.II - Applied and Computational Mathematics 120 Powell-Booth 2:00 - 2:20 PM	<i>Casey Jao</i>	Computational Investigation of Magnetic Drug Targeting	Oscar P. Bruno <i>Professor of Applied and Computational Mathematics</i> Catherine E. Beni <i>Graduate Student in Applied and Computational Mathematics</i>
Q.I - Electrical Engineering/ Applied Physics 125 Steele 11:20 - 11:40 AM	<i>Suyao Ji</i> <i>Richter Scholar</i>	Design and Measurement of Compressive Sensing Receiver Using Discrete Components	Azita Emami <i>Assistant Professor of Electrical Engineering</i> Juhwan Yoo <i>Graduate Student in Electrical Engineering</i>
K.III - Aeronautics/ Mechanical Engineering 101 Guggenheim 2:30 - 2:50 PM	<i>Menglu M. Jiang</i> <i>Carolyn Ash SURF Fellow</i>	The Axel Rover: A Study on Extreme Mobility Using Wheel Efficiency and Performance	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Pablo Abad-Manterola <i>Graduate Student in Mechanical Engineering</i>
Q.I - Electrical Engineering/ Applied Science 125 Steele 11:00 - 11:20 AM	<i>Raymond C. Jimenez</i>	Super-Small, Super-Efficient CMOS Neural Probes	Axel Scherer <i>Bernard A. Neches Professor of Electrical Engineering, Applied Physics, and Physics</i> Aditya Rajagopal <i>Graduate Student in Electrical Engineering</i>

I.II - Chemical Engineering 113 Spalding 2:00 - 2:20 PM	Granton A. Jindal	Investigating AND Gate Topologies to Aid in Proteomic Analysis	David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i> John T. Ngo <i>Graduate Student in Biochemistry</i>
Q.III - Electrical Engineering/Applied Physics 125 Steele 2:50 - 3:10 PM	Justin C. Johnson	Pedestrian Tracking Using a Strong Object Model	Pietro Perona <i>Allen E. Puckett Professor of Electrical Engineering</i> Michael R. Maire <i>Postdoctoral Scholar in Electrical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Amol D. Kamat <i>Soli Deo Gloria SURF Fellow</i>	Establishing a Cell Culture System to Study the Piwi-piRNA Pathway	Alexei Aravin <i>Assistant Professor of Biology</i>
H.II - Chemical Engineering 106 Spalding 1:00 - 1:20 PM	Arvind Kamman <i>Amgen Scholar</i>	Towards C-H and C=C Nitrene Insertion Catalyzed by Cytochrome P450 _{BM3}	Frances H. Arnold <i>Dick and Barbara Dickinson Professor of Chemical Engineering, Bioengineering, and Biochemistry</i> Pedro Coelho <i>Graduate Student in Chemistry</i>
U.I - Astronomy 228 Baxter 11:00 - 11:20 AM	Kirit S. Karkare <i>Rose Hills Foundation SURF Fellow</i>	KuPol: A New Ku-Band Polarimeter for the OVRO 40-Meter Telescope	Anthony C. Readhead <i>Barbara and Stanley R. Rawn, Jr., Professor of Astronomy</i> Oliver G. King <i>W.M. Keck Institute for Space Studies Postdoctoral Fellow in Astronomy</i>
O.I - Computer Science 120 Powell-Booth 10:20 - 10:40 AM	Christopher T. Kennelly <i>Amgen Scholar</i>	Efficient Numerical Modeling of DNA-Based Tile Self-Assembly	Erik Winfree <i>Associate Professor of Computer Science, Computation and Neural Systems, and Bioengineering</i> Constantine Evans <i>Graduate Student in Physics</i>
Q.III - Electrical Engineering/Applied Physics 125 Steele 3:10 - 3:30 PM	Asif R. Khan <i>J. Weldon Green SURF Fellow</i>	Toward Real-Time Object Detection Through Intelligent Image Sampling and Scene Geometry Integration	Pietro Perona <i>Allen E. Puckett Professor of Electrical Engineering</i> Piotr Dollar <i>Postdoctoral Scholar in Electrical Engineering</i>

L.I - Applied Physics 102 Steele 11:20 - 11:40 AM	<i>Rishi D. Khanna</i> <i>Robert T. Herzog SURF Fellow</i>	Investigating Methods of Ohmic Contacting a ZnO/Cu ₂ O Heterojunction	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Davis S. Darvish <i>Graduate Student in Materials Science</i>
I.II - Chemical Engineering 113 Spalding 1:20 - 1:40 PM	<i>Sangkyu Kim</i>	Solid-State NMR Studies on Crystallization of ITW Zeolite	Sonjong Hwang <i>Member of the Professional Staff in Chemical Engineering; Lecturer in Chemistry</i> S. I. Zones <i>Catalyst Researcher, Chevron Energy and Technology Center</i>
S.III - Geological and Planetary Sciences 306 Firestone 2:50 - 3:10 PM	<i>Stacy Y. Kim</i>	Detection Rates of Basic Molecules in the Inner Protoplanetary Disk	Geoffrey A. Blake <i>Professor of Cosmochemistry and Planetary Sciences and Professor of Chemistry</i> Klaus M. Pontoppidan <i>Senior Postdoctoral Fellow in Planetary Science</i>
R.III - Materials Science 214 Steele 3:10 - 3:30 PM	<i>Daniil A. Kitchaev</i> <i>Sidney R. and Nancy M. Petersen SURF Fellow</i>	The Superprotonic Phase Transition and Hysteresis Behavior of Cs _{1-x} K _x H ₂ PO ₄	Sossina M. Haile <i>Professor of Materials Science and Chemical Engineering</i> Ayako Ikeda <i>Graduate Student in Materials Science</i>
K.I - Aeronautics/ Mechanical Engineering 101 Guggenheim 10:20 - 10:40 AM	<i>Chan-Hee Koh</i>	Generation of Micro Bubbles as Tracer Particles for Particle Image Velocimetry (PIV)	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Professor of Bioinspired Engineering</i> Daegyoun Kim <i>Graduate Student in Aeronautics</i>
B.II - Biology 25 Baxter 1:20 - 1:40 PM	<i>Philip L. Kong</i>	Single Allele Underdominance: A Novel Gene Drive Mechanism	Bruce A. Hay <i>Professor of Biology</i>

N.II - Bioengineering
228 Baxter
1:20 - 1:40 PM

Timea Kosztin

The Use of Crowders in
Tissue Engineering

Gabor Forgacs
*George H. Vineyard
Distinguished Professor of
Biological Physics, University of
Missouri*
Francoise S. Marga
*Research Associate in Physics,
University of Missouri*
Rob B. Phillips
*Professor of Applied Physics
and Mechanical Engineering*

D.I - Biology
127 Baxter
10:40 - 11:00 AM

Pranay D. Kothari

The Effects of Viewing Angle
on Human Face Perception

Ralph Adolphs
*Bren Professor of Psychology
and Neuroscience and Professor
of Biology*
Ronald E. Bryan
*Graduate Student in
Computation and Neural
Systems*

Poster Session
San Pasqual Mall
3:45 - 5:00 PM

Kent A. Koyanagi
Richter Scholar

Programmable Matter:
Systems That Can Think,
Talk, and Morph
Autonomously

Daniela Rus
*Professor of Computer Science,
Massachusetts Institute of
Technology*
Joel W. Burdick
*Professor of Mechanical
Engineering and
Bioengineering*

P.II - Computer Science
100 Powell-Booth
1:00 - 2:00 PM
(group presentation)

Jonathan D. Krause
*Rita A. and Øistein Skjellum
SURF Fellow*

Detecting Earthquakes Using
Cell Phone Accelerometers

R. Andreas Krause
*Assistant Professor of Computer
Science*

G.I - Chemistry
102 Spalding
10:40 - 11:00 AM

Jessie C. Ku

Single Wire Characterization
of VLS-Grown Si Microwires
From Electrodeposited
Copper

Nathan S. Lewis
*George L. Argyros Professor and
Professor of Chemistry*
Emily Warren
*Graduate Student in Chemical
Engineering*

A.II - Biology
19 Baxter
2:00 - 2:20 PM

Sharon R. Kuo
*Rose Hills Foundation
SURF Fellow*

Analysis of the Gene
Regulatory Network
Controlling Aboral Ectoderm
Specification in
Strongylocentrotus purpuratus

Eric H. Davidson
*Norman Chandler Professor of
Cell Biology*
Smadar B. Ben-Tabou
de-Leon
Postdoctoral Scholar in Biology

V.III - Astronomy
142 Keck
3:10 - 3:30 PM

Anson C. Lam

Relativistic Pre-Merger Disk
Dynamics of Binary Black
Holes

Christopher M. Hirata
*Assistant Professor of
Astrophysics*

I.I - Chemical Engineering 113 Spalding 10:00 - 10:20 AM	Thomas J. Lampo <i>Amgen Scholar</i>	Improving Cell-Selective Labeling of Proteins via Incorporation of Non- Canonical Amino Acids	David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i> Frank Truong <i>Graduate Student in Chemical Engineering</i>
E.I - Chemistry 128 Baxter 10:20 - 10:40 AM	Nadia C. Lara <i>Reed and Ruth Brantley SURF Fellow</i>	Synthesis and Reactivity of Nickel Complexes Supported by a Terphenyl Diphosphine	Theodor Agapie <i>Assistant Professor of Chemistry</i> Madalyn R. Radlauer <i>Graduate Student in Chemistry</i>
F.I - Chemistry 237 Baxter 10:40 - 11:00 AM	Katherine D. Lavoie <i>Occidental College</i>	Gating Diatomic Release From NOS	Harry B. Gray <i>Arnold O. Beckman Professor of Chemistry</i> Charlotte A. Whited <i>Graduate Student in Chemistry</i>
W.II - Mathematics 206 Thomas 1:40 - 2:00 PM	Brian R. Lawrence	Further Consequences of the Gross-Zagier Formulae	Dinakar Ramakrishnan <i>Taussky-Todd-Loneragan Professor of Mathematics</i>
V.I - Astronomy 142 Keck 10:40 - 11:00 AM	Christina C. Lee	A Planet Survey Around Evolved Intermediate Mass Stars in Open Clusters	John A. Johnson <i>Assistant Professor of Astronomy</i>
P.II - Computer Science 100 Powell-Booth 2:00 - 2:20 PM	Christina E. Lee	Effect of Social Networks on Stable Matchings	Adam C. Wierman <i>Assistant Professor of Computer Science</i>
K.II - Aeronautics/ Mechanical Engineering 101 Guggenheim 1:20 - 1:40 PM	Dylan Lee	Analyzing Soot Formation in Coflow Diffusion Flames	Guillaume Blanquart <i>Assistant Professor of Mechanical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Edward K. Lee	Early Embryonic Gene Expression in <i>Strongylocentrotus purpuratus</i>	Eric H. Davidson <i>Norman Chandler Professor of Cell Biology</i> Jongmin Nam <i>Postdoctoral Scholar in Biology</i>
A.I - Biology 19 Baxter 11:00 - 11:20 AM	Grace Y. Lee <i>Harry B. Gray SURF Fellow</i>	Stability Assay of Tenascin and Acyl-phosphatase Using Their Intrinsic Tryptophan Fluorescence	Stephen L. Mayo <i>Bren Professor of Biology and Chemistry</i> Alex Nisthal <i>Graduate Student in Biochemistry</i>

Y.I - Physics 306 Thomas 10:00 - 10:20 AM	<i>Kyung Ha Lee</i>	Suspension Upgrade Research for Gravitational Wave Detectors	Alastair Heptonstall <i>Lead Scientist, LIGO</i> Norna A. Robertson <i>Lead Scientist, LIGO</i>
O.I - Computer Science 120 Powell-Booth 11:20 - 11:40 AM	<i>Yae Lim Lee</i> <i>Richter Scholar</i>	A Single-Stranded Autonomous DNA Walker on 2D Landscape	Erik Winfree <i>Associate Professor of Computer Science, Computation and Neural Systems, and Bioengineering</i>
F.II - Chemistry 237 Baxter 1:00 - 1:20 PM	<i>Jomya C. Lei</i> <i>Dr. Terry Cole SURF Fellow</i>	Tracking the Decomposition of Silica-Supported Olefin Metathesis Catalysts	Robert H. Grubbs <i>Victor and Elizabeth Atkins Professor of Chemistry; Nobel Laureate</i> Matthew M. Van Wingerden <i>Graduate Student in Chemistry</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Nicole A. Levac</i>	Laboratory Studies of the Impact of Aerosol Aging on Iron Speciation	James J. Schauer <i>Professor of Environmental Chemistry and Technology, University of Wisconsin, Madison</i> Richard C. Flagan <i>Irma and Ross McCollum- William H. Corcoran Professor of Chemical Engineering and Professor of Environmental Science and Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Mariya Levina</i>	Predicting Sediment Flux Following Wildfires in Steep Terrain	Michael P. Lamb <i>Assistant Professor of Geology</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Aaron M. Levine</i> <i>Sung-Hsien Chen Shih SURF Fellow</i>	Optimization and Stereoselectivity of Aplysin Synthesis	Brian M. Stoltz <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry</i> Alex F. Goldberg <i>Graduate Student in Chemistry</i>
T.I - Humanities and Social Sciences 210 Baxter 11:00 - 11:20 AM	<i>Garrett D. Lewis</i> <i>Richter Scholar</i>	Supreme Injustice: Campaign Contributions and Corruption in State Supreme Courts	Matthew S. Shum <i>Professor of Economics</i>
D.II - Biology 127 Baxter 2:00 - 2:20 PM	<i>Ang Li</i>	Determination of <i>C. elegans</i> Genes Implicated in the Dauer Decision Using Statistical Approaches and Transgenic Worms	Paul W. Sternberg <i>Thomas Hunt Morgan Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Oren Schaedel <i>Graduate Student in Biology</i>

B.III - Biology 25 Baxter 3:30 - 3:50 PM	Flora M. Li	Combination CIK/Vaccinia Treatment of Neuroblastoma	Christopher Contag <i>Associate Professor of Pediatrics and of Microbiology and Immunology, Stanford University</i> Scott E. Fraser <i>Anna L. Rosen Professor of Biology and Professor of Bioengineering</i>
C.II - Biology 125 Baxter 1:20 - 1:40 PM	Zongyu Li <i>Amgen Scholar</i>	Molecular Interactions of Methyl-CpG-Binding Protein 2 and Inhibitor of Kappa B Kinase Alpha	Paul H. Patterson <i>Anne P. and Benjamin F. Biaggini Professor of Biological Sciences</i> Ali Khoshnan <i>Senior Research Fellow in Biology</i>
C.I - Biology 125 Baxter 11:20 - 11:40 AM	Dongkook D. Lim <i>Rossum Family SURF Fellow</i>	Bacterial Molecules That Modulate Immune Responses During Intestinal Inflammation	Sarkis K. Mazmanian <i>Assistant Professor of Biology</i> Janet Chow <i>Graduate Student in Biology</i>
G.II - Chemistry 102 Spalding 1:00 - 1:20 PM	Ee Jane Lim	Structure and Catalytic Activity of Cadmium- Transporting P1B-Type ATPase (CadA)	Douglas C. Rees <i>Roscoe Gilkey Dickinson Professor of Chemistry; Investigator, Howard Hughes Medical Institute</i> Gabriele Meloni <i>Postdoctoral Scholar in Chemistry</i>
A.II - Biology 19 Baxter 1:20 - 1:40 PM	Chuan-Song A. Lin <i>Bristol-Myers SURF Fellow</i>	Expression of Gene Isoforms in the Fronto-Insular Cortex of Autistic Subjects	John M. Allman <i>Frank P. Hixon Professor of Neurobiology</i>
W.II - Mathematics 206 Thomas 2:00 - 2:20 PM	Jeffrey T. Lin	Specialization of Kuratowski's Theorem to N-Connected Graphs	Henry J. Wilton <i>Scott Russel Johnson Senior Research Fellow in Mathematics</i>
X.III - Physics 301 Thomas 3:10 - 3:30 PM	Kurt J. Litsch <i>The Associates SURF Fellow</i>	Fault-Tolerant Quantum Computation With Dynamical Decoupling	John P. Preskill <i>Richard P. Feynman Professor of Theoretical Physics</i>
G.II - Chemistry 102 Spalding 1:20 - 1:40 PM	Erik J. Liu <i>Richter Scholar</i>	Development of an Asymmetric [3+2] Cycloaddition for the Synthesis of Functionalized Pyrrolidines	Sarah E. Reisman <i>Assistant Professor of Chemistry</i> Julian A. Codelli <i>Graduate Student in Chemistry</i>

I.III - Chemical Engineering 113 Spalding 2:30 - 2:50 PM	Megan Lo	Tissue Engineering With Artificial Extracellular Matrix Proteins	David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i> Alborz Mahdavi <i>Graduate Student in Bioengineering</i>
B.III - Biology 25 Baxter 2:50 - 3:10 PM	Tsung-Ju J. Lu	Engineering the Commensal Bacteria <i>Lactobacillus jensenii</i> to Secrete Antibodies That Combat Human Immunodeficiency Virus Infection	Pamela J. Bjorkman <i>Max Delbrück Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Rachel Galimidi <i>Research Technician Associate in Biology</i>
M.II - Bioengineering 218 Baxter 1:00 - 1:20 PM	Brian S. Ma <i>Larson Scholar</i>	Design and Implementation of a 3D Printer Utilizing Recombinant <i>E. coli</i>	Richard M. Murray <i>Thomas E. and Doris Everhart Professor of Control and Dynamical Systems and Bioengineering</i> Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i> Joseph T. Meyerowitz <i>Graduate Student in Biochemistry</i> Emmanuel Lorenzo C. de los Santos <i>Graduate Student in Bioengineering</i>
T.II - Humanities and Social Sciences 210 Baxter 1:40 - 2:00 PM	Jennifer Ma <i>Rose Hills Foundation SURF Fellow</i>	Price Discovery: Examining Income Effects in Trading in Continuous Double Auctions	John O. Ledyard <i>Allen and Lenabelle Davis Professor of Economics and Social Sciences</i>
R.II - Materials Science 214 Steele 1:40 - 2:00 PM	Xiaoya Ma <i>Samuel P. and Frances Krown SURF Fellow</i>	Effects of Metallic and Metalloidal Introductions on the Glass-Forming Abilities of Copper-Based Alloys	William L. Johnson <i>Ruben F. and Donna Mettler Professor of Engineering and Applied Science</i> Marios D. Demetriou <i>Senior Research Fellow in Materials Science</i>
X.I - Physics 301 Thomas 10:20 - 10:40 AM	Aliza I. Malz	A Novel Scalar Field Theory Model for Bouncing Cosmology	Sean M. Carroll <i>Senior Research Associate in Physics</i>

S.I - Geological and Planetary Sciences 306 Firestone 11:00 - 11:20 AM	<i>Taylor S. Martin</i>	Dinosaur Body Temperatures and Environmental Temperatures From Clumped Isotope Paleothermometry in Bioapatite	John M. Eiler <i>Robert P. Sharp Professor of Geology and Professor of Geochemistry</i>
M.III - Bioengineering 218 Baxter 3:10 - 3:30 PM	<i>Sarah E. Marzen</i> <i>Class of '52 SURF Fellow</i>	The Use of the Principle of Maximum Entropy and Information Theory in Biology	Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i>
U.I - Astronomy 228 Baxter 10:40 - 11:00 AM	<i>Michael V. Maseda</i> <i>Arthur R. Adams SURF Fellow</i>	Quasar Redshift Determination With a Data-Driven Model	Joseph F. Hennawi <i>Research Group Leader, Max Planck Institute for Astronomie</i> S. George Djorgovski <i>Professor of Astronomy</i>
N.III - Bioengineering 228 Baxter 2:50 - 3:10 PM	<i>Jordan E. Maslov</i> <i>Chung Ip Wing-Wah Memorial SURF Fellow</i>	Geometric, Mechanical, and Chemical Cues to Branching Morphogenesis and Cell Behavior	Chin-Lin Guo <i>Assistant Professor of Bioengineering and Applied Physics</i>
F.I - Chemistry 237 Baxter 11:20 - 11:40 AM	<i>Matthew Z. Mayers</i>	Understanding and Preventing Dendrite Formation in Rechargeable Lithium Metal Batteries	Thomas F. Miller <i>Assistant Professor of Chemistry</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Stephen Meisenhelter</i> <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	SeismoCloud: Cloud Based Earthquake Data Center	Robert W. Clayton <i>Professor of Geophysics</i> Ellen Yu <i>Products Manager, Southern California Earthquake Data Center</i>
Y.II - Physics 306 Thomas 2:00 - 2:20 PM	<i>Gabriel J. Mendoza</i> <i>Arthur R. Adams SURF Fellow</i>	Are Spurious Fluctuators in Josephson Junctions Bosonic or Two-Level Modes?	John M. Martinis <i>Professor of Physics, University of California, Santa Barbara</i> John P. Preskill <i>Richard P. Feynman Professor of Theoretical Physics</i>
G.III - Chemistry 102 Spalding 3:10 - 3:30 PM	<i>Alan J. Menezes</i>	A Classical Mechanics Force Field for the Description of Radical Binding in Mechanically Interlocked Molecules	William A. Goddard III <i>Charles and Mary Ferkel Professor of Chemistry, Materials Science, and Applied Physics</i> José L. Mendoza Cortes <i>Graduate Student in Materials Science</i>

G.I - Chemistry 102 Spalding 10:00 - 10:20 AM	Andrew C. Meng	Thin Layer Silicon Wire-Array Liquid Junction Solar Cells	Nathan S. Lewis <i>George L. Argyros Professor and Professor of Chemistry</i> Chengxiang Xiang <i>Postdoctoral Scholar in Chemistry</i>
T.II - Humanities and Social Sciences 210 Baxter 1:20 - 1:40 PM	Brian D. Merlob	Application of Individual Evolutionary Learning to Simulations of Common Value Auctions	John O. Ledyard <i>Allen and Lenabelle Davis Professor of Economics and Social Sciences</i>
A.I - Biology 19 Baxter 10:40 - 11:00 AM	Aarathi Minisandram <i>Thomas Hunt Morgan SURF Fellow</i>	Investigating the Role of Bach1 in T-cell Independent Immune Response	David Baltimore <i>Robert Andrews Millikan Professor of Biology; Nobel Laureate; President Emeritus</i> Alex S. So <i>Postdoctoral Scholar in Biology</i>
C.III - Biology 125 Baxter 2:30 - 2:50 PM	Shruti Mishra <i>Laurence J. Stuppy SURF Fellow</i>	Cis-Regulation of Bcl11b in T-cell Development	Ellen Rothenberg <i>Albert Billings Ruddock Professor of Biology</i> Long Li <i>Postdoctoral Scholar in Biology</i>
K.III - Aeronautics/ Mechanical Engineering 101 Guggenheim 3:10 - 3:30 PM	Brian K. Mok <i>Shirley and Carl Larson SURF Fellow</i>	Sampling Mechanism for a Low Altitude Montgolfier Balloon Based Mission to Titan	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Pablo Abad-Manterola <i>Graduate Student in Mechanical Engineering</i>
C.I - Biology 125 Baxter 10:40 - 11:00 AM	Mahati M. Mokkarala	Role of Murine Lynx1 in Nicotine-Mediated Neuroprotection of Mouse Cortical Neurons	Henry A. Lester <i>Bren Professor of Biology</i> Rahul Srinivasan <i>Postdoctoral Scholar in Biology</i>
H.II - Chemical Engineering 106 Spalding 1:40 - 2:00 PM	Rachel S. Moore <i>Brenda and Louis J. Alpinieri SURF Fellow</i>	The Studies of the Propulsion of Various Classes of Microswimmers	John F. Brady <i>Chevron Professor of Chemical Engineering and Professor of Mechanical Engineering</i> Roseanna N. Zia <i>Graduate Student in Mechanical Engineering</i>

I.II - Chemical Engineering 113 Spalding 1:40 - 2:00 PM	Melody A. Morris	Physically Gelling Double Network Hydrogels for Reversibly Tough Biomaterials	Bradley D. Olsen <i>Assistant Professor of Chemical Engineering, Massachusetts Institute of Technology</i> David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Alexander T. Mouschovias <i>Robert L. Blinkenberg SURF Fellow</i>	Dewar Design and Construction for a Closed-Cycle Pulsed-Tube Cryogenic Test Chamber	Sunil Golwala <i>Associate Professor of Physics</i> Marc Runyan <i>Senior Postdoctoral Scholar in Observational Cosmology</i>
L.III - Applied Physics 102 Steele 2:30 - 2:50 PM	Monorina Mukhopadhyay	Optimization of Characteristic Frequency of Optomechanical Membranes	Oskar J. Painter <i>Associate Professor of Applied Physics</i> Richard A. Norte <i>Graduate Student in Physics</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Dana M. Murphy University of California, Berkeley	Literature as Historical Illumination: Re-Reading the Vietnam War Today	Kevin M. Gilmartin <i>Professor of English</i>
W.II - Mathematics 206 Thomas 1:20 - 1:40 PM	Alexandra M. Musat <i>Richter Scholar</i>	Generalizing a Result About Small Prime Gaps	Dinakar Ramakrishnan <i>Taussky-Todd-Loneragan Professor of Mathematics</i> Paul D. Nelson <i>Graduate Student in Mathematics</i>
E.I - Chemistry 128 Baxter 11:20 - 11:40 AM	Chantal L. Mustoe <i>Edward W. Hughes SURF Fellow</i>	Environmental Clean Up: Uranyl Complexes and the Functionalization of Small Molecules	Polly L. Arnold <i>Professor of Synthetic Inorganic Chemistry, University of Edinburgh</i> Harry B. Gray <i>Arnold O. Beckman Professor of Chemistry</i>
R.III - Materials Science 214 Steele 2:50 - 3:10 PM	Karthik Narsimhan <i>Richter Scholar</i>	Growth of Single Crystals and Characterization of Potassium Content and Lattice Parameters of $\text{Ba}_{3-x}\text{K}_x\text{H}_x(\text{PO}_4)_2$ and Kinetics of $\text{CsH}(\text{PO}_3\text{H})$ Oxidation Under Humidified Air	Sossina M. Haile <i>Professor of Materials Science and Chemical Engineering</i> Ayako Ikeda <i>Graduate Student in Materials Science</i>

I.I - Chemical Engineering 113 Spalding 11:00 - 11:20 AM	Albert Nava California State University, Los Angeles <i>NSF Center for the Science and Engineering of Materials MURF Fellow</i>	Synthesis and Assembly of Mucoadhesive R _f -PEG/ R _f -PEG-PAA Hydrogel Drug Delivery System	Julia A. Kornfield <i>Professor of Chemical Engineering</i> Ming-Hsin Wei <i>Graduate Student in Chemical Engineering</i> Yong Ba <i>Assistant Professor of Chemistry, California State University, Los Angeles</i>
Q.III - Electrical Engineering/Applied Physics 125 Steele 2:30 - 2:50 PM	Ilya Nepomnyashchiy	Image Segmentation With Crowds	Pietro Perona <i>Allen E. Puckett Professor of Electrical Engineering</i> Peter Welinder <i>Graduate Student in Computation and Neural Systems</i>
K.III - Aeronautics/ Mechanical Engineering 101 Guggenheim 3:30 - 3:50 PM	Russell G. Newman	Development of Low-Force, Low-Power Rock Driller/ Corer for Use in Suspended Cliff Side, Robotic, Sample Collection	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Pablo Abad-Manterola <i>Graduate Student in Mechanical Engineering</i>
P.I - Computer Science 100 Powell-Booth 11:00 - 11:20 AM	Albert H. Ng	Towards Developing an Ultra-Low Power AVR Microcontroller	Alain J. Martin <i>Professor of Computer Science</i>
A.II - Biology 19 Baxter 1:00 - 1:20 PM	Nina Z. Ng-Quinn <i>Franz and Anne Nierlich SURF Fellow</i>	Doublecortin Expression in Von Economo Neurons in Layer 5 of Frontoinsular and Anterior Cingulate Cortex	John M. Allman <i>Frank P. Hixon Professor of Neurobiology</i> Nicole A. Tetreault <i>Graduate Student in Biology</i>
I.I - Chemical Engineering 113 Spalding 10:20 - 10:40 AM	Viet Anh Nguyen Huu	The Effect of Crosslinking on the Resistance of Eye Tissues to Enzymatic Digestion	Julia A. Kornfield <i>Professor of Chemical Engineering</i> Joyce Huynh <i>Graduate Student in Chemical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Lan Huong Nguyen	Measurement and Forecast of Caltech Electronic Journal Downloads Using Time Series Analysis	Robert P. Sherman <i>Professor of Economics and Statistics</i>
E.I - Chemistry 128 Baxter 10:40 - 11:00 AM	Eva M. Nichols <i>Arthur A. Noyes SURF Fellow</i>	Synthesis and Characterization of Copper Complexes for Applications in Renewable Energy	Theodor Agapie <i>Assistant Professor of Chemistry</i> Emily Tsui <i>Graduate Student in Chemistry</i>

E.I - Chemistry 128 Baxter 11:00 - 11:20 AM	<i>Wei Jian Ong</i> <i>Samuel P. and Frances Krown SURF Fellow</i>	Synthesis of a Rotationally Hindered Ligand to Form Tri-Nickel or Tri-Copper Complexes	Theodor Agapie <i>Assistant Professor of Chemistry</i> Jacob S. Kanady <i>Graduate Student in Chemistry</i>
B.I - Biology 25 Baxter 11:20 - 11:40 AM	<i>Arpit Panda</i> <i>Richter Scholar</i>	Measuring Transcription Rates in Cell Lines by Biosynthetic Labeling of mRNA	Katalin Fejes Toth <i>Thomas Hunt Morgan Senior Research Fellow in Biology</i>
E.II - Chemistry 128 Baxter 1:00 - 1:20 PM	<i>Alison D. Parisian</i>	Synthesis of DNA Sequence With Multiple Lesions to Study the First Step of Mismatch Detection for DNA Repair	Jacqueline K. Barton <i>Arthur and Marian Hanisch Memorial Professor and Professor of Chemistry</i> Pamela A. Sontz <i>Graduate Student in Chemistry</i>
I.III - Chemical Engineering 113 Spalding 2:50 - 3:10 PM	<i>Sungjin Park</i>	Non-Radioactive Identification of Newly Synthesized Fatty Acids in Cells	David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i> Janek Szychowski <i>Postdoctoral Scholar in Chemical Engineering</i>
T.III - Humanities and Social Sciences 210 Baxter 2:30 - 2:50 PM	<i>Atanu K. Paul</i> <i>Caltech-HKU Exchange</i>	An Empirical Analysis of CDS Premia and CDO Pricing	Jin E. Zhang <i>Associate Professor, School of Economics and Finance, University of Hong Kong</i> Xingguo Luo <i>School of Economics and Finance, University of Hong Kong</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Yashna Peerthum</i>	Determining the Uranium Distribution in Apatite Crystals	Ken A. Farley <i>W.M. Keck Foundation Professor of Geochemistry</i>
B.III - Biology 25 Baxter 3:10 - 3:30 PM	<i>Brian N. Peng</i> <i>Rose Hills Foundation SURF Fellow</i>	Expression Profiling of Novel Protein FT93a in the Zebrafish Olfactory System	Marianne Bronner <i>Albert Billings Ruddock Professor of Biology</i> Ankur Saxena <i>Postdoctoral Scholar in Biology</i>
W.I - Mathematics 206 Thomas 11:00 - 11:20 AM	<i>Christopher A. Perez</i>	Code Fractals	Matilde Marcolli <i>Professor of Mathematics</i>

H.I - Chemical Engineering 106 Spalding 10:20 - 10:40 AM	Alan M. Pezeshki <i>The Associates SURF Fellow</i>	Ray Tracing in Solar Concentrators	Richard C. Flagan <i>Irma and Ross McCollum- William H. Corcoran Professor of Chemical Engineering and Professor of Environmental Science and Engineering</i> Tristan Day <i>Graduate Student in Chemical Engineering</i>
L.II - Applied Physics 102 Steele 1:20 - 1:40 PM	Andrey D. Poletayev <i>The Associates SURF Fellow</i>	Design of Heterojunction Silicon Microwire Photovoltaics	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Morgan C. Putnam <i>Graduate Student in Chemical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Christopher A. Pombrol <i>Richter Scholar</i>	Characterization of Milled Glass Reinforced Polyurea	Sia Nemat-Nasser <i>Professor of Mechanical and Aerospace Engineering, University of California, San Diego</i> Kristin L. Schaaf <i>Postdoctoral Researcher in Mechanical and Aerospace Engineering, University of California, San Diego</i> Wolfgang G. Knauss <i>Theodore von Kármán Professor of Aeronautics and Applied Mechanics, Emeritus</i>
K.I - Aeronautics/ Mechanical Engineering 101 Guggenheim 11:00 - 11:20 AM	Andre Pradhana <i>Toshi Kubota Aeronautics SURF Fellow</i>	Solving Kohn-Sham Eigenvalue Problem via Iterative Methods	Michael Ortiz <i>Dotty and Dick Hayman Professor of Aeronautics and Mechanical Engineering</i> Malena I. Español <i>Postdoctoral Scholar in Aeronautics</i>
N.III - Bioengineering 228 Baxter 3:10 - 3:30 PM	Andrew J. Price <i>Rose Hills Foundation SURF Fellow</i>	Precise 3D Microenviron- ments Provide Insight Into the Mechanics of Epithelial Tissue Morphogenesis	Chin-Lin Guo <i>Assistant Professor of Bioengineering and Applied Physics</i>
V.III - Astronomy 142 Keck 3:30 - 3:50 PM	Sedona H. Price <i>Charles and Valerie Elachi SURF Fellow</i>	Weak Gravitational Lensing Measurements on a Subaru Survey: Point Spread Function Estimation, Shear Measurements, and Cosmological Constraints	Jason D. Rhodes <i>Scientist, JPL</i> Joel Berge <i>Postdoctoral Scholar, JPL</i>

H.III - Chemical Engineering 106 Spalding 2:30 - 2:50 PM	Amy C. Proctor	Molecular Biology of Drug Candidates for Pharmacologic Vitreolysis	Anand R. Asthagiri <i>Assistant Professor of Chemical Engineering</i> Jin-Hong Kim <i>Graduate Student in Bioengineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Suyeon Pyo <i>Edward W. Hughes SURF Fellow</i>	Synthesis and Biological Studies of Heparan Sulfate Mimetic Polymers	Linda C. Hsieh-Wilson <i>Associate Professor of Chemistry; Investigator, Howard Hughes Medical Institute</i> Young In Oh <i>Graduate Student in Chemistry</i>
B.I - Biology 25 Baxter 11:00 - 11:20 AM	Kasra Rahbar <i>Robert J. McEliece and David Rutledge SURF Fellow</i>	Single Molecule mRNA Fluorescence <i>in situ</i> Hybridization (FISH) in Mouse Embryonic Stem (ES) Cells	Michael B. Elowitz <i>Associate Professor of Biology and Bioengineering; Investigator, Howard Hughes Medical Institute</i> Julia Tischler <i>Postdoctoral Scholar in Biology</i>
M.III - Bioengineering 218 Baxter 3:30 - 3:50 PM	Pradeep Ramesh <i>Amgen Scholar</i>	Single Molecule Dynamics of V(D)J Recombination: A Mechanistic Understanding of the '12-23' Rule in the Adaptive Immune System	Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i> Geoffrey A. Lovely <i>Graduate Student in Chemistry</i>
M.II - Bioengineering 218 Baxter 2:00 - 2:20 PM	Arjun Ravikumar <i>Richter Scholar</i>	Construction of a Theophylline Receptive DNA Circuit in a Cell-Free Transcription/Translation System	Richard M. Murray <i>Thomas E. and Doris Everhart Professor of Control and Dynamical Systems and Bioengineering</i> Jongmin Kim <i>Graduate Student in Biology</i>
N.II - Bioengineering 228 Baxter 1:00 - 1:20 PM	Caitlin A. Regan <i>Heather and Paul Haaga SURF Fellow</i>	Temperature Dependence of Morphological Development in <i>Aurelia aurita</i>	John O. Dabiri <i>Associate Professor of Aeronautics and Bioengineering</i> Janna Nawroth <i>Graduate Student in Biology</i>
V.III - Astronomy 142 Keck 2:50 - 3:10 PM	Joanna R. Robaszewski <i>Homer J. Stewart SURF Fellow</i>	Spectroscopic Analysis of Young Stars in the Sigma Orionis Cluster	Lynne Hillenbrand <i>Associate Professor of Astronomy</i>

L.II - Applied Physics 102 Steele 2:00 - 2:20 PM	<i>Cipriano W. Romero</i>	The Effect of Chemical Mechanical Planarization on Optical Facet Quality	Amnon Yariv <i>Martin and Eileen Summerfield Professor of Applied Physics and Professor of Electrical Engineering</i> Scott T. Steger <i>Graduate Student in Electrical Engineering</i>
P.II - Computer Science 100 Powell-Booth 1:00 - 2:00 PM (group presentation)	<i>Daniel E. Rosenberg</i> <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	Earthquake Detection and Early Warning via Inexpensive Accelerometers	R. Andreas Krause <i>Assistant Professor of Computer Science</i>
U.I - Astronomy 228 Baxter 10:00 - 10:20 AM	<i>M. Nicole Rowley</i> Citrus College	Window to the South Pole: Image Reduction and Analysis of the 2009 Gattini Camera Network Dome A Data	Anna M. Moore <i>Instrument Scientist in Astronomy</i>
V.I - Astronomy 142 Keck 11:00 - 11:20 AM	<i>Alexander R. Rudy</i> Pomona College	Building Software Components for the RoboAO Robotic Adaptive Optics Instrument	Christoph J. Baranec <i>Postdoctoral Scholar in Astronomy</i> Reed Riddle <i>Research Scientist in Astrophysics</i>
K.III - Aeronautics/ Mechanical Engineering 101 Guggenheim 2:50 - 3:10 PM	<i>Gerard F. Salinas</i>	Low Altitude Ground Sampling From Lighter-Than- Air Vehicles For Extraterrestrial Exploration	Joel W. Burdick <i>Professor of Mechanical Engineering and Bioengineering</i> Pablo Abad-Manterola <i>Graduate Student in Mechanical Engineering</i>
W.I - Mathematics 206 Thomas 10:00 - 10:20 AM	<i>Eric G. Samperton</i>	Refining the Lower Bound on the Simplicity of the Cube Using Hyperbolic Volumes	Danny C. Calegari <i>Richard Merkin Distinguished Professor of Mathematics</i> Matthew B. Day <i>Postdoctoral Scholar in Mathematics</i>
R.I - Materials Science 214 Steele 11:00 - 11:20 AM	<i>Troy E. Sandberg</i> <i>Rose Hills Foundation SURF Fellow</i>	Analyzing the Efficacy of the Standard Linear Solid Model for Predicting the Viscoelastic Properties of Polymers	Julia R. Greer <i>Assistant Professor of Materials Science</i> Shelby B. Hutchens <i>Graduate Student in Materials Science</i>
P.I - Computer Science 100 Powell-Booth 10:40 - 11:00 AM	<i>Karthik V. Sarma</i> <i>Amgen Scholar</i>	Cardiac Auscultation for the Developing World	K. Mani Chandy <i>Simon Ramo Professor and Professor of Computer Science</i>

Q.II - Electrical Engineering/Applied Physics 125 Steele 1:00 - 1:20 PM	<i>Sanket Satpathy</i> <i>Richter Scholar</i>	Analyzing Weighted L_1 Minimization for Compressed Sensing	Babak Hassibi <i>Professor of Electrical Engineering</i>
X.III - Physics 301 Thomas 2:50 - 3:10 PM	<i>Franz A. Sauer</i> <i>Siemens Foundation SURF Fellow</i>	Analyzing the Performance of Bacon-Shor Codes in Topological Quantum Information Error Recovery Using a Protocol Based on Minimum-Weight Matching	John P. Preskill <i>Richard P. Feynman Professor of Theoretical Physics</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Daniel R. Scalese</i> University of Southern California	Discrete-Vortex Methods for Simulating Leading Edge Separation on Flat-Plate Airfoils	Anthony Leonard <i>Theodore von Kármán Professor of Aeronautics, Emeritus</i> Andrew Tchieu <i>Graduate Student in Aeronautics</i>
Q.I - Electrical Engineering/Applied Physics 125 Steele 10:20 - 10:40 AM	<i>Hunter J. Sceats</i>	Towards Real-Time PCR in Cyclic Olefin Copolymer	Axel Scherer <i>Bernard A. Neches Professor of Electrical Engineering, Applied Physics, and Physics</i> Imran Malik <i>Graduate Student in Electrical Engineering</i>
X.II - Physics 301 Thomas 2:00 - 2:20 PM	<i>Elliot A. Schneider</i>	Search for Extra Dimensions, Massive Gravitons, and Additional Physics Beyond the Standard Model at the Large Hadron Collider	Harvey B. Newman <i>Professor of Physics</i> Marat I. Gataullin <i>Assistant Scientist in Experimental High Energy Physics</i>
A.I - Biology 19 Baxter 10:00 - 10:20 AM	<i>Rebecca L. Scholz</i> <i>Doris Everhart SURF Fellow</i>	MicroRNA-155 Plays an Important Role in Dendritic Cell and T Cell Development	David Baltimore <i>Robert Andrews Millikan Professor of Biology; Nobel Laureate; President Emeritus</i> Ryan O'Connell <i>Postdoctoral Scholar in Biology</i>
X.I - Physics 301 Thomas 10:00 - 10:20 AM	<i>Nicholas E. Scianmarello</i>	Dynamic Gravity and the Arrow of Time	Sean M. Carroll <i>Senior Research Associate in Physics</i>
U.I - Astronomy 228 Baxter 11:20 - 11:40 AM	<i>James M. Scott</i>	Determining Evolutionary Processes of Elliptical Galaxies	Nick Z. Scoville <i>Francis L. Moseley Professor of Astronomy</i> Peter L. Capak <i>Staff Scientist in Astronomy</i>

Q.II - Electrical Engineering/Applied Physics 125 Steele 2:00 - 2:20 PM	Jasmine S. Sears	Grooved Microfluidic Channels for Guided Non-Rotational Particle Motion	Changhuei Yang <i>Associate Professor of Electrical Engineering and Bioengineering</i> Seung Ah Lee <i>Graduate Student in Electrical Engineering</i>
J.II - Applied and Computational Mathematics 120 Powell-Booth 1:40 - 2:00 PM	Ayon Sen <i>Toni and Bob Perpall SURF Fellow</i>	Using the Fourier Continuation Method to Solve Eigenvalue Problems on Arbitrary Domains	Oscar P. Bruno <i>Professor of Applied and Computational Mathematics</i> Timothy J. Elling <i>Staff Scientist in Applied and Computational Mathematics</i>
Q.I - Electrical Engineering/Applied Physics 125 Steele 10:00 - 10:20 AM	Dongjin Seo <i>The Aerospace Corporation SURF Fellow</i>	Quasi-Optical Harmonic Cancellation of a Mutually Inter-Locked Distributed Antenna Array for Generation of High Frequency Power and Efficient Radiation	Ali A. Hajimiri <i>Thomas G. Myers Professor of Electrical Engineering</i> Kaushik Sengupta <i>Graduate Student in Electrical Engineering</i>
D.I - Biology 127 Baxter 11:00 - 11:20 AM	Katherine B. Shakman	Mapping the Neural Circuitry of Aggression in <i>Drosophila melanogaster</i>	David J. Anderson <i>Seymour Benzer Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Liming Wang <i>Graduate Student in Biology</i>
V.II - Astronomy 142 Keck 2:00 - 2:20 PM	Nihar Sharma	Classifying Things That Go *BANG!* in the Night	S. George Djorgovski <i>Professor of Astronomy</i> Ciro Donalek <i>Postdoctoral Scholar in Astronomy</i>
X.III - Physics 301 Thomas 3:30 - 3:50 PM	Isaac C. Sheff	NuSIM	Fiona A. Harrison <i>Professor of Physics and Astronomy</i> Kristin K. Madsen <i>Postdoctoral Scholar in Physics</i>
I.I - Chemical Engineering 113 Spalding 10:40 - 11:00 AM	Dongying Shen <i>Howard Hughes Medical Institute SURF Fellow</i>	Adhesion and Migration of Corneal Fibroblasts on Artificial Protein Hydrogels	Julia A. Kornfield <i>Professor of Chemical Engineering</i> Loddie L. Foose <i>Postdoctoral Scholar in Chemistry</i>
E.I - Chemistry 128 Baxter 10:00 - 10:20 AM	Jade J. Shi	Synthesis, Characterization, and Redox Activity of a Novel Mononuclear Molybdenum Diphosphine Complex	Theodor Agapie <i>Assistant Professor of Chemistry</i> Sibo Lin <i>Graduate Student in Chemistry</i>

K.II - Aeronautics/ Mechanical Engineering 101 Guggenheim 1:00 - 1:20 PM	Kevin Shi <i>Robert I. and Winifred E. Gardner SURF Fellow</i>	Numerical Modeling and Analysis of Hydrocarbon Soot Formation Pathways	Guillaume Blanquart <i>Assistant Professor of Mechanical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Dong Woo Shin	Regulation of the Hox 11/13b Gene in Embryonic <i>S. purpuratus</i>	R. Andrew Cameron <i>Senior Research Associate in Biology</i>
A.I - Biology 19 Baxter 10:20 - 10:40 AM	Nikita Sinha	MiR-125b Appears to Polarize Macrophages Towards the Anti-Inflammatory M2 Lineage	David Baltimore <i>Robert Andrews Millikan Professor of Biology; Nobel Laureate; President Emeritus</i> Aadel A. Chaudhuri <i>Graduate Student in Biology</i>
A.III - Biology 19 Baxter 2:50 - 3:10 PM	Natnaree Siriwon <i>Larson Scholar</i>	The Regulatory Role of the Wnt Signaling Pathway in <i>Strongylocentrotus purpuratus</i> Endoderm Specification	Eric H. Davidson <i>Norman Chandler Professor of Cell Biology</i> Isabelle S. Peter <i>Postdoctoral Scholar in Biology</i>
V.I - Astronomy 142 Keck 11:20 - 11:40 AM	Marland H. Sitt	Atmospheric Dispersion Corrector System for Robo- AO (Robotic Laser Adaptive Optics and Science Instrument for 1-3 m Telescopes)	Christoph J. Baranec <i>Postdoctoral Scholar in Astronomy</i> Reed Riddle <i>Research Scientist in Astrophysics</i>
S.III - Geological and Planetary Sciences 306 Firestone 3:30 - 3:50 PM	Benjamin L. Slawski <i>Ms. Jane Chen SURF Fellow</i>	Using Outgoing Longwave Radiation Data to Index Kelvin Waves	Yuk L. Yung <i>Professor of Planetary Science</i>
G.II - Chemistry 102 Spalding 2:00 - 2:20 PM	Alexandra A. Souverneva	Progress Towards the Total Synthesis of Nootkastatin 1: Alkylation, Dercarboxy- methylation, and Cuprate Jubilation	Brian M. Stoltz <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry</i> Kristy Tran <i>Postdoctoral Scholar in Chemistry</i>
V.II - Astronomy 142 Keck 1:00 - 1:20 PM	Giordon H. Stark <i>Edward C. and Alice Stone SURF Fellow</i>	Submillimeter Transmission of Materials	Simon Radford <i>Member of the Professional Staff in Astronomy</i> David A. Miller <i>Microwave/Electronics Engineer in Submillimeter Astronomy</i>

S.II - Geological and Planetary Sciences 306 Firestone 1:20 - 1:40 PM	William M. Steinhardt <i>Karen and James Cutts SURF Fellow</i>	Understanding the Ultra-Low Velocity Zones at Earth's Core Mantle Boundary	Jennifer M. Jackson <i>Assistant Professor of Mineral Physics</i> Bin Chen <i>Texaco Postdoctoral Scholar in Geophysics</i>
G.III - Chemistry 102 Spalding 2:30 - 2:50 PM	Sabrina I. Sun <i>Richter Scholar</i>	Exploring Thermostatic Properties of the Heat Shock Factor to Characterize Induction of the Heat Shock Response	Carl S. Parker <i>Professor of Biochemistry</i>
S.I - Geological and Planetary Sciences 306 Firestone 10:20 - 10:40 AM	Vivian Z. Sun <i>Hugh F. and Audy Lou Colvin SURF Fellow</i>	Analyzing the Behaviors and Life Cycles of Jovian Vortices Using Cassini Data, With a Focus on Polar Regions	Andrew P. Ingersoll <i>Earle C. Anthony Professor of Planetary Science</i>
L.I - Applied Physics 102 Steele 10:00 - 10:20 AM	Mikhail V. Sushkov	Characterization of Vanadium Dioxide Thin Films for Electrically Driven Thermo-Optic Waveguide Modulators	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Ryan M. Briggs <i>Graduate Student in Materials Science</i>
E.II - Chemistry 128 Baxter 2:00 - 2:20 PM	Kevin M. Sutherland	Terahertz Time-Domain Spectroscopy of Sugars	Geoffrey A. Blake <i>Professor of Cosmochemistry and Planetary Sciences and Professor of Chemistry</i> Marco A. Allodi <i>Graduate Student in Chemistry</i>
E.III - Chemistry 128 Baxter 2:50 - 3:10 PM	Jessica G. Swallow	Searching for a Cation- π Interaction in the M2 Muscarinic Acetylcholine Receptor	Dennis A. Dougherty <i>George Grant Hoag Professor of Chemistry</i> Ethan Van Arnam <i>Graduate Student in Chemistry</i>
N.III - Bioengineering 228 Baxter 2:30 - 2:50 PM	Lihshih Tang <i>Caltech-HKU Exchange</i>	DNA Barcoding for Herbal Tea Ingredients	Pang Chui Shaw <i>Professor of Biochemistry, Chinese University of Hong Kong</i>
T.I - Humanities and Social Sciences 210 Baxter 10:20 - 10:40 AM	Dalia B. Taylor	Can Jurors Think Like Scientists? The Bayesian Approach to Scientific Evidence	Edward J. McCaffery <i>Visiting Professor of Law</i>

F.I - Chemistry 237 Baxter 11:00 - 11:20 AM	<i>Jordan C. Theriot</i> <i>Development and Institute Relations SURF Fellow</i>	"Click" Ligands for New Supramolecular Structures	Andrew W. Maverick <i>Professor of Chemistry, Louisiana State University</i> Harry B. Gray <i>Arnold O. Beckman Professor of Chemistry</i>
A.II - Biology 19 Baxter 1:40 - 2:00 PM	<i>Joshua W. Tollefson</i>	Designing a Temporal Gene Expression Graphic of the <i>Strongylocentrotus purpuratus</i> Embryo	R. Andrew Cameron <i>Senior Research Associate in Biology</i>
C.I - Biology 125 Baxter 11:00 - 11:20 AM	<i>Gloria E. Tran</i> <i>Rose Hills Foundation SURF Fellow</i>	Characterizing a Role for the Gene ERDR1 in Establishing Host-Bacterial Relationships	Sarkis K. Mazmanian <i>Assistant Professor of Biology</i> June L. Round <i>Postdoctoral Scholar in Biology</i>
K.I - Aeronautics/ Mechanical Engineering 101 Guggenheim 11:20 - 11:40 AM	<i>Stephanie Tsuei</i>	Developing Computational Tools to Predict Material Behavior	Michael Ortiz <i>Doty and Dick Hayman Professor of Aeronautics and Mechanical Engineering</i> Malena I. Español <i>Postdoctoral Scholar in Aeronautics</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	<i>Elisa C. Walsh</i> <i>Richter Scholar</i>	Efficacy and Mechanism of Placental Growth Factor (PlGF) Blockade as a Novel Treatment of Medulloblastoma	Matija Snuderl <i>Pathology Service, Massachusetts General Hospital</i> Marianne Bronner <i>Albert Billings Ruddock Professor of Biology</i>
R.II - Materials Science 214 Steele 2:00 - 2:20 PM	<i>Yi J. Wang</i>	Effect of Particle Size on Phase Transformations of $\text{Li}_2\text{FeSiO}_4$	Yet-Ming Chiang <i>Professor of Materials Science and Engineering, Massachusetts Institute of Technology</i> Channing C. Ahn <i>Senior Research Associate in Materials Science; Lecturer in Materials Science</i>
C.III - Biology 125 Baxter 2:50 - 3:10 PM	<i>Yizhuo Wang</i>	Evaluating the Role of Fibrinogen in Kidney Injury	Vishal S. Vaidya <i>Assistant Professor of Medicine, Brigham and Women's Hospital/Harvard Medical School</i> David A. Tirrell <i>Ross McCollum-William H. Corcoran Professor and Professor of Chemistry and Chemical Engineering</i>

F.II - Chemistry 237 Baxter 2:00 - 2:20 PM	Ziying Wang <i>The Associates SURF Fellow</i>	Nanoscience Application in Atrophic Age-Related Macular Degeneration	Robert H. Grubbs <i>Victor and Elizabeth Atkins Professor of Chemistry; Nobel Laureate</i> Bahar Bingol <i>Postdoctoral Scholar in Chemical Engineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Lisa Y. Watanabe East Los Angeles College <i>NSF Center for the Science and Engineering of Materials MURF Fellow</i>	BMG in Biomedical Applications	William L. Johnson <i>Ruben F. and Donna Mettler Professor of Engineering and Applied Science</i> R.D. Conner <i>Professor, Department of Manufacturing Systems Engineering and Management, California State University, Northridge</i> Marios Demetriou <i>Senior Research Fellow in Materials Science</i>
Y.I - Physics 306 Thomas 10:20 - 10:40 AM	Alexander S. Wein	Identifying and Subtracting Noise Transients in Gravitational-Wave Detectors	Ajith Parameswaran <i>Postdoctoral Scholar in Physics</i> Rana Adhikari <i>Assistant Professor of Physics</i>
O.I - Computer Science 120 Powell-Booth 11:00 - 11:20 AM	Talia M. Weiss <i>Larson Scholar</i>	Using Catalytic DNA Circuits to Detect a Non-Nucleic-Acid Signal	Erik Winfree <i>Associate Professor of Computer Science, Computation and Neural Systems, and Bioengineering</i> Lulu Qian <i>Postdoctoral Scholar in Bioengineering</i>
P.III - Computer Science 100 Powell-Booth 2:50 - 3:10 PM	Benjamin S. Weitz	Explicitly Constructing Tensors of High Rank	Chris M. Umans <i>Associate Professor of Computer Science</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Danika F. Wellington	Saturn Auroras Seen in Visible and Near-IR by Cassini ISS	Andrew P. Ingersoll <i>Earle C. Anthony Professor of Planetary Science</i>
D.III - Biology 127 Baxter 2:30 - 2:50 PM	Qing Yu Weng	Visualization and Quantification of Infection by Human Immunodeficiency Virus Using a Novel Ribonucleic Acid Hybridization Technique	Daniel G. Kavanagh <i>Instructor in Medicine, Massachusetts General Hospital</i> David Baltimore <i>Robert Andrews Millikan Professor of Biology; Nobel Laureate; President Emeritus</i>

V.III - Astronomy 142 Keck 2:30 - 2:50 PM	Christopher J. White <i>The Aerospace Corporation SURF Fellow</i>	Improving Techniques for the Direct Detection and Characterization of Extrasolar Planets	Justin R. Crepp <i>Postdoctoral Scholar in Astronomy</i> Lynne Hillenbrand <i>Associate Professor of Astronomy</i>
L.I - Applied Physics 102 Steele 10:20 - 10:40 AM	Reginald G. Wilcox	Silver Nanoparticle Deposition Using Anodic Aluminum Oxide Template	Harry A. Atwater <i>Howard Hughes Professor and Professor of Applied Physics and Materials Science</i> Dennis Callahan <i>Graduate Student in Materials Science</i>
J.III - Applied and Computational Mathematics 120 Powell-Booth 2:30 - 2:50 PM	Christopher A. Wong <i>Kirk and Marjory Dawson Family SURF Fellow</i>	Analysis of Kelvin-Helmholtz Instability Using High-Order Taylor Series in Time	Dan I. Meiron <i>Fletcher Jones Professor of Aeronautics and Applied and Computational Mathematics</i>
T.I - Humanities and Social Sciences 210 Baxter 10:00 - 10:20 AM	Katherine M. Wong	The Role of Strategic Exits on the Perceived Value of the Incumbency Effect	Jonathan N. Katz <i>Professor of Social Sciences and Statistics</i>
C.II - Biology 125 Baxter 1:00 - 1:20 PM	Christine E. Wu <i>Richter Scholar</i>	Regulation of the Cell Cycle to Control Cell Size in <i>Arabidopsis</i> Sepals	Elliot M. Meyerowitz <i>George W. Beadle Professor of Biology</i> Adrienne H. Roeder <i>Postdoctoral Scholar in Biology</i>
S.III - Geological and Planetary Sciences 306 Firestone 3:10 - 3:30 PM	Jacqueline T. Wu <i>James J. Morgan SURF Fellow</i>	Analysis of Nitric Acid in the San Joaquin Valley	Paul O. Wennberg <i>R. Stanton Avery Professor of Atmospheric Chemistry and Environmental Science and Engineering</i> Jason St. Clair <i>Postdoctoral Scholar in Environmental Science and Engineering</i>
P.III - Computer Science 100 Powell-Booth 3:10 - 3:50 PM (joint presentation)	Shengkai Wu	Measurement and Modeling of Server Energy Utilization Curve	Steven H. Low <i>Professor of Computer Science and Electrical Engineering</i>
Y.III - Physics 306 Thomas 2:50 - 3:10 PM	Teng-Pao Wu <i>Richter Scholar</i>	Scanning Tunneling Spectroscopic Studies on Graphene Grown by Chemical Vapor Deposition	Nai-Chang Yeh <i>Professor of Physics</i> Marcus Teague <i>Graduate Student in Physics</i>

H.II - Chemical Engineering 106 Spalding 1:20 - 1:40 PM	Timothy M. Wu <i>Samuel and Berta Spalter SURF Fellow</i>	Examining Thermostable Chimeric Cellulase Mixtures	Frances H. Arnold <i>Dick and Barbara Dickinson Professor of Chemical Engineering, Bioengineering, and Biochemistry</i> Matthew Smith <i>Graduate Student in Bioengineering</i>
Poster Session San Pasqual Mall 3:45 - 5:00 PM	Stephanie M. Wuerth <i>Mary Vodopia SURF Fellow</i>	Elucidating the Photooxidation of 3-Methyl- 2,3-epoxybutan-1-ol, an Analog of Isoprene Epoxydiol	Paul O. Wennberg <i>R. Stanton Avery Professor of Atmospheric Chemistry and Environmental Science and Engineering</i> Nathan C. Eddingsaas <i>Postdoctoral Scholar in Chemistry</i>
D.I - Biology 127 Baxter 10:20 - 10:40 AM	Jenny Z. Xiong	Implicit Processing of Facial Perspective Cues	Ralph Adolphs <i>Bren Professor of Psychology and Neuroscience and Professor of Biology</i> Ronald E. Bryan <i>Graduate Student in Computation and Neural Systems</i>
Y.III - Physics 306 Thomas 2:30 - 2:50 PM	Junxiao Xu	Correction of Persistence in HgCdTe Near Infrared Detectors	Gregory Tarlé <i>Professor of Physics, University of Michigan</i> Michael Schubnell <i>Associate Research Scientist in Physics, University of Michigan</i> Roger M. Smith <i>Principal Electronics Engineer in Astronomy</i>
M.II - Bioengineering 218 Baxter 1:40 - 2:00 PM	Melissa Xu	Creating Solids Out of Bacteria: The Use of Light Induction to Create Three- Dimensional Models From <i>E. coli</i>	Richard M. Murray <i>Thomas E. and Doris Everhart Professor of Control and Dynamical Systems and Bioengineering</i> Rob B. Phillips <i>Professor of Applied Physics and Mechanical Engineering</i> Joseph T. Meyerowitz <i>Graduate Student in Biochemistry</i> Emmanuel Lorenzo C. de los Santos <i>Graduate Student in Bioengineering</i>

Q.II - Electrical Engineering/Applied Physics 125 Steele 1:20 - 1:40 PM	Lita F. Yang <i>Caltech-NUS Exchange</i>	Active Plasmonic Structures Based on Nano-Sphere Lithography (NSL)	Minghui Hong <i>Associate Professor of Electrical Engineering, National University of Singapore</i>
B.III - Biology 25 Baxter 2:30 - 2:50 PM	Ran Yang	Mitochondrial Heteroplasmy Induced by a Transgenic Heat-Shock Promoter Can Be Passed on to Future Generations Lacking the Transgene	Bruce A. Hay <i>Professor of Biology</i>
D.I - Biology 127 Baxter 10:00 - 10:20 AM	Vivian Yang	Determination and Optimization of Clustering Methodology for a Targeted Genome-Wide Association Study (GWAS)	Steven M. Wolinsky <i>Samuel J. Sackett Professor of Infectious Diseases, Northwestern University</i> Sudhir Penugonda <i>Infectious Disease Fellow, Northwestern University</i> Sarkis K. Mazmanian <i>Assistant Professor of Biology</i>
D.II - Biology 127 Baxter 1:40 - 2:00 PM	Alex W. Yeh	Double-Stranded RNA Screening to Identify Genes Affecting Mitochondrial Distribution in Different Muscles of the Nematode <i>Caenorhabditis elegans</i>	Paul W. Sternberg <i>Thomas Hunt Morgan Professor of Biology; Investigator, Howard Hughes Medical Institute</i> Amir Sapir <i>Postdoctoral Scholar in Biology</i>
G.I - Chemistry 102 Spalding 11:00 - 11:20 AM	Joon Young Yoon	Photoassisted Electrodeposition of CdTe Films From Ammonia Buffer Solutions	Nathan S. Lewis <i>George L. Argyros Professor and Professor of Chemistry</i> Bryce F. Sadtler <i>Postdoctoral Scholar in Chemistry</i> Joseph A. Beardslee <i>Graduate Student in Chemistry</i>
Y.I - Physics 306 Thomas 11:20 - 11:40 AM	Joshua Yoon	Fabrication, Characterization, and Modeling of Graphene Nanoelectromechanical Switches	Michael L. Roukes <i>Professor of Physics, Applied Physics, and Bioengineering</i> Philip X.L. Feng <i>Senior Staff Scientist in Physics</i> Peter Hung <i>Graduate Student in Applied Physics</i>

Y.III - Physics 306 Thomas 3:10 - 3:30 PM	<i>Alvin Yu</i>	Scaling Relations in Bosonic Models for High Temperature Superconductors	Gil Refael <i>Associate Professor of Theoretical Physics</i> Netanel Lindner <i>Postdoctoral Scholar in Theoretical Physics</i>
Y.II - Physics 306 Thomas 1:20 - 1:40 PM	<i>Chia-Chen Yu</i>	Competition Between Surface Stress and Surface Scattering on Nanoscale Gold Cantilever Sensors	Michael L. Roukes <i>Professor of Physics, Applied Physics, and Bioengineering</i>
F.III - Chemistry 237 Baxter 2:50 - 3:10 PM	<i>Mary Beth J. Yu</i> <i>Rose Hills Foundation SURF Fellow</i>	Capture Agent for Phosphorylated Akt Protein	James R. Heath <i>Elizabeth W. Gilloon Professor and Professor of Chemistry</i> Arundhati Nag <i>Graduate Student in Chemistry</i>
P.III - Computer Science 100 Powell-Booth 3:10 - 3:50 PM (joint presentation)	<i>Yuehua Zhao</i>	Measurement and Modeling of Power Curves for Data Center Components	Steven H. Low <i>Professor of Computer Science and Electrical Engineering</i> Adam C. Wierman <i>Assistant Professor of Computer Science</i>
H.I - Chemical Engineering 106 Spalding 11:00 - 11:20 AM	<i>Qinren Zhen</i>	Fabrication and Characterization of Refractive Funnel Solar Concentrators	Richard C. Flagan <i>Irma and Ross McCollum- William H. Corcoran Professor of Chemical Engineering and Professor of Environmental Science and Engineering</i> Tristan Day <i>Graduate Student in Chemical Engineering</i>
B.II - Biology 25 Baxter 2:00 - 2:20 PM	<i>Mario V. Zobia</i> <i>Dr. Vincent A. Marinkovich '55 Memorial 2010 SURF Fellow</i>	Building an Underdominance Construct in <i>Drosophila</i>	Bruce A. Hay <i>Professor of Biology</i> Kelly J. Dusinger <i>Graduate Student in Biochemistry</i>
W.III - Mathematics 206 Thomas 3:30 - 3:50 PM	<i>Andrew J. Zucker</i>	Transitive Ramsey Numbers	Niranjan Balachandran <i>Harry Bateman Research Instructor of Mathematics</i>