Welcome

March 7, 2014

Dear Students, Faculty and guests,

Welcome to the 2nd Annual Cal Poly Pomona Student Research Conference. I would like to thank the students and their mentors for the work that is being presented today, and thanks to all of the participants, including faculty moderators, judges, administrators, staff and student volunteers who have made this event possible.

The student research, scholarly and creative activities that are being presented today illustrate some of the finest work that is being done by our students, and some of the finest work by faculty and staff in preparing our students to become tomorrow’s problem solvers, entrepreneurs, leaders, teachers, artists and scholars. Virtually all academic disciplines are being represented today, in an annual celebration of our learn-by-doing philosophy.

On behalf of the Cal Poly Pomona Student Research Conference Organizing Committee, congratulations to all participants!

Sincerely,

Frank W. Ewers
Associate Vice President for Research

Undergraduate Research Faculty Advisory Council (URFAC)
Student Research Conference Organizing Committee
Dr. Joan M. Leong, Chair
Dr. Erika DeJonghe, Judge Coordinator
Dr. Winny Dong
Dr. Jae Min Jung
Ms. Julie Shen
Ms. Shari Jackson
Ms. Elisa Mitchell
Mr. Deandre King
### 2nd Annual Cal Poly Pomona Student Research Conference

#### Event Schedule

**Oral Presentations: Pages 5 - 24**

**University Library (Building 15)**

**First Floor Reception Desk**

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>12:15 PM</td>
<td>Information and Check-In</td>
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<tr>
<td>1:00 PM</td>
<td>Oral Presentations</td>
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<tr>
<td>2:30 PM</td>
<td>15 minute Break</td>
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<tr>
<td>2:45 PM</td>
<td>Oral Presentations</td>
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<tr>
<td>3:45 PM</td>
<td>Walk to Poster Session and Reception</td>
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**Poster Session and Reception: Pages 25-30**

**Bronco Student Center (Building 35)**

**Ursa Minor: 35-2135**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>3:30 PM</td>
<td>Information and Check-In for Presenters</td>
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<td>4:00 PM</td>
<td>Poster Session</td>
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<tr>
<td>5:15 PM</td>
<td>Reception (Dr. Frank Ewers)</td>
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<td></td>
<td>Keynote Speaker Dr. Una Morris</td>
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<tr>
<td>5:45 PM</td>
<td>Awards Announcement (Dr. Winny Dong)</td>
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</table>
University Library Sessions and Floor Maps

Session 1: Business, Economics, and Public Administration (15-1828)
Session 2: Biological and Agricultural Sciences (15-1802)
Session 3: Biological and Agricultural Sciences, Undergraduate (15-1808)
Session 4: Engineering and Computer Science; Interdisciplinary (15-1822)
Session 5: Engineering and Computer Science; Interdisciplinary (15-2907)
Session 6: Interdisciplinary (WK Kellogg Arabian Horse Library)
Session 7: Humanities and Letters; Behavioral and Social Sciences (15-2913)
Session 8: Humanities and Letters; Behavioral and Social Sciences (Events Room – Fourth Floor)
Session 9: Behavioral and Social Sciences (15-1814)
Session 10: Engineering and Computer Science (Special Collections – Fourth Floor)
1:15 - 1:30 PM
What Influences the Chinese Tourist to Buy Wine in Southern California? Kai Wei! An Importance-Performance Analysis
Mark Botieff (Hospitality Management, Graduate)
Faculty Mentor: Dr. Myong Jae (MJ) Lee

1:30 - 1:45 PM (Withdrawn)
An Examination of REITs in Target Date Funds
Zohara Soval-Levine (Economics, Graduate)
Faculty Mentor: Dr. Craig Kerr

1:45 - 2:00 PM
An Investigation of Managerial Compensation in the Restaurant Industry
Erin Mascho (Hospitality Management, Graduate)
Faculty Mentor: Dr. Zhenxing Mao

2:00 - 2:15 PM
Stakeholder Efficacy in the Napa Brand: An Importance-Performance Analysis from the Demand Perspective
Yvonne Hsiung (Hospitality Management, Graduate)
Faculty Mentor: Dr. Neha Singh

2:15 - 2:30 PM
The Web Designer’s Palette for Painting a Colorful Profit: A Color Theory Based Business Strategy Framework for Optimizing the Color Scheme Decision-Making Process
Kevin Ferris (Computer Information Systems, Undergraduate)
Faculty Mentor: Dr. Sonya Zhang
2:30 – 2:45 PM: Break

2:45 - 3:00 PM
*The Veil of War: An Examination of Propaganda in a Post 9/11 World*
Blanca Perea (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

3:00 - 3:15 PM
*Government Shutdowns: A Comparative Analysis*
Stephanie Sosa (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

3:15 - 3:30 PM (Withdrawn)
*Democratic Transition: An Analysis of Education Enrollment and Employment Rates in China*
Jessica Marquez (Political Science, Undergraduate)
Faculty Mentor: Dr. Allen Coson

3:30 - 3:45 PM
*Irreconcilable Differences: Competing Interests in Competitive Capitalism*
Daniel Kommel (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

Darryl J.M. Balacanao (2013 CPP SRC)
1:15 – 1:30 PM

**Novel Tri-peptide gD Liposomal Vaccine Protects BALB/c Mice Against an HSV-2 Intravaginal Infection**

Elena Chavez (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler-Moore

1:30 – 1:45 PM

**The development of an Aspergillus fumigatus vaccine for protection against pulmonary aspergillosis in mammals**

Adrienne Gilkes, Pamela Farah (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler-Moore

1:45 – 2:00 PM

**Garlic And Allicin Modulate Candida Albicans-induced Tumor Necrosis Factor Alpha (TNF-α) Secretion From J774a.1 Murine Macrophages**

Dileshni Tilakawardane (Biological Sciences, Graduate)
Faculty Mentor: Dr. Nancy Buckley

2:00 – 2:15 PM

**Effect of a CpG adjuvant (TLR9 agonist) on the Efficacy of a Liposomal Influenza M2e Vaccine**

Amalia Saperi (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler-Moore

2:15 – 2:30 PM

Comparison of efficacy and drug concentrations in tissues of Candida albicans-infected mice treated with increasing doses of AmBisome

Juan Ruiz (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler
2:30 – 2:45 PM: Break

2:45 – 3:00 PM
*Thermodynamic Measurements May Reveal a New Ion/Substrate Stoichiometry for the Gamma-Aminobutyric Acid Transporter 1*
Samantha Willford (Biological Sciences, Graduate)
Faculty Mentor: Dr. Sepehr Eskandari

3:00 – 3:15 PM
*Dispersion of Phage Integrases in Acinetobacter baumannii species*
Eleana Guardado (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler-Moore

3:15 – 3:30 PM
*Detection of the cd 40 receptor on the cell surface of macrophages*
Sarineh Zadorian (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill- Adler Moore

3:30 – 3:45 PM
*Investigating the Role of Aqueous Garlic Extract and Synthetic Allicin in Mediating LPS-induced TNF-α Secretion through Modulation of Mitogen Activated Protein Kinase Pathway*
Martha Zamora (Biological Sciences, Graduate)
Faculty Mentor: Dr. Nancy Buckley

3:45 – 4:00 PM
*Development of a Feline Intestinal Epithelial Cell Line Supporting Feline Coronavirus (FcoV) Replication*
Colin Koziol (Biological Sciences, Graduate)
Faculty Mentor: Dr. Jill Adler
1:15 - 1:30 PM
*Investigating the effect of macrophage cell density on garlic modulation of C. albicans induced TNF-α production*
Nhu Do (Biotechnology, Undergraduate)
Faculty Mentor: Dr. Nancy Buckley

1:30 - 1:45 PM (Withdrawn – Presenting a Poster)
*L-theanine and caffeine's effect on cognitive performance in terms of short term memory*
Jimmy Duong, Andrew Gibson (Nutrition Science, Undergraduate)
Faculty Mentor: Dr. Bonnie Burns-Whitmore

1:45 - 2:00 PM
*Caffeine can override S-phase checkpoint in Saccharomyces cerevisiae*
Thuan Tran (Biotechnology, Undergraduate)
Faculty Mentor: Dr. Wendy Dixon

2:00 - 2:15 PM
*Establishing Lower Urinary Tract Candidiasis in Swiss Webster Mice*
Cole Frazier (Biological Sciences, Undergraduate)
Faculty Mentor: Dr. Jill Adler

2:15 - 2:30 PM
*Proliferation of Spacecraft-Associated Acinetobacter on Ethanol and Isopropanol Cleaning Solvents*
Jillian Walker (Zoology, Undergraduate)
Faculty Mentor: Dr. Rakesh Mogul
2:30 – 2:45 PM: Break

2:45 - 3:00 PM
*The Price of Growth When Tides Get Tough; A comparative study of growth rates and the effects of water flow in exposed and sheltered kelp beds of Catalina Island, CA*
Samantha Cooke (Environmental Biology, Undergraduate)
Faculty Mentor: Dr. Jayson Smith

3:00 - 3:15 PM
*Intraspecific geographic variation of body size and sexual size dimorphism in California Alligator Lizards (Elgaria multicarinata and E. coerulea)*
Marlena Lopez, Thomas Marino (Biological Sciences, Undergraduate)
Faculty Mentor: Dr. A. Kristopher Lappin

3:15 - 3:30 PM
*A comparison of mycorrhizae infection in a native and non-native grass*
Rari Marks (Environmental Biology, Undergraduate)
Faculty Mentor: Dr. Erin Questad

3:30 - 3:45 PM
*Investigating the Resilience of a Post-Fire Coastal Sage Scrub Bird Community*
Brian Myers, Marcus Hubbell (Environmental Biology, Undergraduate)
Faculty Mentor: Dr. Erin Questad

3:45 - 4:00 PM
*Arthropod community response to plant invasion and nitrogen deposition*
Eliza Hernandez (Zoology, Undergraduate)
Faculty Mentor: Dr. Erin Questad
1:15 - 1:30 PM
*Anti-bacterial effectiveness of casted films and electrospun mats containing magnesium oxide particles*
Yuriy Bazylev, Susana Vargas, Nickolas Roy (Chemical Engineering, Undergraduate)
Faculty Mentor: Dr. Keith Forward

1:30 - 1:45 PM
*Triboelectrification of Insulators*
Daniel Parks, Jonathan Ngai, Juan Rodriguez (Chemical Engineering, Undergraduate)
Faculty Mentor: Dr. Keith Forward

1:45 - 2:00 PM (Withdrawn)
*Detection of Levoglucosan in Atmosphere by High-Performance Anion-Exchange Chromatography with Pulsed Amperometric Detection*
Dianne Sanchez (Chemistry, Undergraduate)
Faculty Mentor: Dr. Yan Liu

2:00 - 2:15 PM
*Free Surface Electrospun Polyvinylidene Fluoride Membranes for Direct Contact Membrane Distillation*
Scott West, Brian Hensley (Chemical Engineering, Undergraduate)
Faculty Mentor: Dr. Keith Forward

2:15 - 2:30 PM
*Direct Contact Membrane Distillation for Saltwater Desalination*
Erika Estrada, Ryan Oh (Chemical Engineering, Undergraduate)
Faculty Mentor: Dr. Keith Forward

2:30 – 2:45 PM:  Break
2:45 - 3:00 PM  
**Corrosion Behavior of Titanium Boron Alloys in Simulated Physiological Environments**  
Matthew Borgialli, Travis Voorhees, Morgan Wong, Hannah Leu, Obed Villapando (Chemical Engineering, Undergraduate)  
Faculty Mentor: Dr. Vilupanur Ravi

3:00 - 3:15 PM  
**High Temperature Oxidation Behavior of Aluminized Austenitic Stainless Steels**  
Matthew Downs, Cory Gaines, Brandon Elledge, Betty Leung, Michael Casper, Nicholas Agee-Acosta (Chemical Engineering, Undergraduate)  
Faculty Mentor: Dr. Vilupanur Ravi

3:15 - 3:30 PM  
**Corrosion of Nickel Chromium Alloys in Molten Sodium Sulfate Salt at 900 C**  
Zack Gentry, Andrew Sakamoto, Matthew Corey, Norton Thongchua, Kishan Patel (Chemical Engineering, Undergraduate)  
Faculty Mentor: Dr. Vilupanur Ravi

3:30 - 3:45 PM  
**Effect of Activator in Pack Aluminizing of Type 304 Stainless Steel**  
Sutine Sujittosakul, Armando Coronado, Shahan Kasnakjian, Michell Aranda, and Christopher Calle (Chemical Engineering, Undergraduate)  
Faculty Mentor: Dr. Vilupanur Ravi

3:45 - 4:00 PM  
**Deposition Direction Dependent Failure Criteria for FDM ABS**  
Araz Boghozian (Mechanical Engineering, Undergraduate)  
Faculty Mentor: Dr. Mehrdad Haghi
1:15 - 1:30 PM
*Analysis of Local Dynamic Triggering in Southern California due to 2010 El Mayor Cucapah Earthquake*
Rachel Hatch (Geology, Undergraduate)
Faculty Mentor: Dr. Jascha Polet

1:30 - 1:45 PM
*Rollercoaster: Energy Transformation*
Jesus Barriga (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Francelina Neto

1:45 - 2:00 PM
*Analytical Discrepancies In Fiber Model Analysis of Unbonded Post-Tensioned Precast Concrete Walls*
Lucas De Buren (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Felipe Perez

2:00 - 2:15 PM
*Aquaponics*
Daniel Garcia, David Felzer, Rosalina Hussin, Hadasa Reyes, Danny Woolston, Stefan Colvey, Matt Shekels (Mechanical Engineering, Undergraduate)
Faculty Mentor: Dr. Maryam Shafahi

2:15 - 2:30 PM
*Android Application for Travel Data Collection*
Raul Gonzalez (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Xin Ye, Civil Engineering

2:30 – 2:45 PM:  Break
2:45 - 3:00 PM
*Removal of Water Pollutants Via Natural Treatment Systems*
Kristina Billedo, Jenna Dwyer, John Song, Natalie Melgoza, Matthew Cui (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Monica Palomo

3:00 - 3:15 PM
*Sustainable Gardening Initiatives in Previously Used Urban Soils*
Blanca Calderon (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Monica Palomo

3:15 - 3:30 PM
*Nitrate and Perchlorate Removal from the Concentrate Stream of an RO Desalination Plant Using Electrodialysis*
Raffi Dermendjian, Kenneth Kosovich, Julia Cruz, Daniel Espinoza, Samayyah Williams (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Ali Sharbat

3:30 - 3:45 PM
*The Removal of Nitrate and Perchlorate from RO Concentrate Stream*
Samayyah Williams, Blanca Calderon, Connie Tsui, Han Yang, Daniel Espinoza, Nathan Dominguez, Kenneth Kosovich, Amir Kashifi, Raffi Dermendjian (Civil Engineering, Undergraduate)
Faculty Mentor: Dr. Ali Sharbat, Civil Engineering
Session 6: Interdisciplinary, University Library: W.K. Kellogg Arabian Horse Library (First Floor)

1:15 - 1:30 PM
Effects of adding a dried food waste product to the diets of finishing pigs on growth, feed intake, and nutrient digestibility
Heather Acuff (Animal Science, Graduate)
Faculty Mentor: Dr. Lee A. Pettey

1:30 - 1:45 PM
Smoking and Candy on Oral Bacteria, Streptococcus mutans, Adherence
Kay Chanea, Ashley Palmire (Biology, Undergraduate)
Faculty Mentor: Dr. John Chan

1:45 - 2:00 PM
Binding Effects of Dietary Fiber on Minerals When Both are Incorporated in Fortified Pasta Products
Silva Makhlouf (Foods Science, Graduate)
Faculty Mentor: Dr. Yao Olive Li

2:00 - 2:15 PM
Gluten-Free Pasta
Yujia Mei, Romina Bardales, Janet Senger, Silva Makhlouf (Foods Science, Undergraduate)
Faculty Mentor: Dr. Yao Olive Li

2:15 - 2:30 PM
Effect of Fructose Consumption on Memory
Jennifer Torres, Giselle Hernandez, April Aquino (Food and Nutrition, Undergraduate)
Faculty Mentor: Dr. Yao Olive Li
2:30 – 2:45 PM: Break

2:45 - 3:00 PM
Phase Change Materials: Their Effects on Thermal Comfort
Bennie Johnson (Regenerative Studies, Graduate)
Faculty Mentor: Dr. Pablo La Roche

3:00 - 3:15 PM
Multi-epoch Measurements Using Circularization of the Galactic Center (~6667 MHz) Taken From the ATA in 2013
Aaron Castellanos (Electrical Engineering, Undergraduate)
Faculty Mentor: Dr. Gerald Harp

3:15 - 3:30 PM
Free Surface Electrospinning of Microemulsions containing Vitamin E
Jeffrey Miller, Alexis Goebel, and Matthew Lee (Chemical Engineering, Undergraduate)
Faculty Mentor: Dr. Keith Forward

3:30 - 3:45 PM
Project Gas Turbine
Alexander Kanaley, David Ceballos, Scott Richter, James Lee, Alex Martin, Jacob Goering, Mario Ortega, Luz Wyatt, Ricardo Monroy (Mechanical Engineering, Undergraduate)
Faculty Mentor: Dr. Maryam Shafahi

3:45 - 4:00 PM
The Brood of the Swan: A Multi-Generational Stellar Population in M17?
Natalie Nicole Bran Sanchez (Physics, Undergraduate)
Faculty Mentor: Dr. Matt Povich
Session 7: Humanities and Letters; Behavioral and Social Sciences
University Library: 15-2913

1:15 - 1:30 PM
Invisible Incarceration: African American Identity in Toni Morrison's Song of Solomon
Ryan Magalong (English, Graduate)
Faculty Mentor: Dr. Aaron DeRosa

1:30 - 1:45 PM
The Sandinista Revolution: Perceptions and attitudes of Nicaragüense women in Southern California
Jocelyn Murillo (History, Undergraduate)
Faculty Mentor: Dr. Pablo Arreola

1:45 - 2:00 PM
New Found Freedoms: Southern Caribbean Women, Migration and Diasporic Trauma
Daryl Adkins (Gender, Ethnic, and Multicultural Studies, Undergraduate)
Faculty Mentor: Dr. Anita Jain

2:00 - 2:15 PM
Hidden Ways Social Class May Affect Potential For Success
Ann Truong (Psychology, Undergraduate)
Faculty Mentor: Dr. Jeffery Mio

2:15 - 2:30 PM
Framing Spaces of Illegality: Undocumented College Graduates and Deferred Action
Maria Servin (Ethnic and Women's Studies, Undergraduate)
Faculty Mentor: Dr. Anita Jain
2:30 – 2:45 PM: Break

2:45 - 3:00 PM  
*Performing Masculinity in Bars*  
Christian Murillo (Psychology; Gender, Ethnicity, and Multicultural Studies, Undergraduate)  
Faculty Mentor: Dr. Anita Jain

3:00 - 3:15 PM  
*Food: Intergenerational Knowledge and Autonomous Practices*  
Lindsey Davis (Gender, Ethnicity, and Multicultural Studies, Undergraduate)  
Faculty Mentor: Dr. Terri Gomez

3:15 - 3:30 PM  
*Speaking from the Margins: (Re)Imagining Central American Parental Involvement*  
Audrey Paredes (Gender, Ethnicity, and Multicultural Studies, Undergraduate)  
Faculty Mentor: Dr. Terri Gomez

3:30 - 3:45 PM  
*A Measure to Assess Risk Factors for Sexual Coercion at Fraternity Parties*  
Christian Murillo (Psychology; Gender, Ethnicity, and Multicultural Studies, Undergraduate)  
Faculty Mentor: Dr. Erika DeJonghe
Session 8: Humanities and Letters; Behavioral and Social Sciences, University Library: Events Room 15-4829 (Fourth Floor)

1:15 - 1:30 PM
Northeast Los Angeles Parklet Study
Esther Amaya, Windy Lory (Urban and Regional Planning, Undergraduate)
Faculty Mentor: Dr. Gwen Urey

1:30 - 1:45 PM
Freemasons and Fruit: The Influence of Fraternalism on the Development of Orange, California
Laura Fisher (History, Undergraduate)
Faculty Mentor: Dr. Amanda Podany

1:45 - 2:00 PM
“Don Jon” Movie Analysis: Applying the Sociological Imagination to Problems Portrayed Within Film
Daniel Gomez (Political Science, Undergraduate)
Faculty Mentor: Dr. Dennis Loo

2:00 - 2:15 PM
Mixed Messages: How Race and Gender Affect the Perception of Miley Cyrus’s 2013 VMAs Performance
Andrea Lavilles (Sociology, Undergraduate)
Faculty Mentor: Dr. Anthony Ocampo

2:15 - 2:30 PM
Passed From the Hands of Mexico to that of the United States: The Americanization of Santa Barbara, 1840-1880
Julio Pizano (History, Undergraduate)
Faculty Mentor: Dr. Rachel Van
2:30 – 2:45 PM: Break

2:45 - 3:00 PM
Illiteracy and Texting
Derek Smith (English Education, Undergraduate)
Faculty Mentor: Dr. Olga Griswold

3:00 - 3:15 PM
Exploring the Common Core State Standards at Westmont Elementary (Pomona, CA)
Brian Bulaya (Urban and Regional Planning, Undergraduate)
Faculty Mentor: Dr. Kyle Brown

3:15 - 3:30 PM (Withdrawn)
"We Want You!": Assessing One University's Responses To Supporting and Engaging Military Veteran Transfer Students Transition Back To School
Tammi Chaparro, Ariana Quinonez, Andrea Lavilles
(Sociology, Undergraduate)
Faculty Mentor: Dr. Mary Danico

3:30 - 3:45 PM
Sons of a Battle Cry: A Comparison of a Samurai and the Kabuki Theatre
Dylan Parra (Theatre, Undergraduate)
Faculty Mentor: Dr. Nancy Kyes
1:15 - 1:30 PM
Farmworker Access to Health Care and the Impact of the Affordable Care Act on Them
Jessica Gonzalez (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

1:30 - 1:45 PM
The Healthcare Reform Act: Factors affecting People’s Choice of Health Coverage
Tim Toledo (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

1:45 - 2:00 PM (Withdrawn)
Apportionment, Gerrymandering, and Ideology: Examining the Disparities in the Geographic Size and Populations of U.S. Congressional Districts
Richard Flinchum III (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

2:00 - 2:15 PM
Legislative Friction: Using Social Network Analysis to Study Partisan Polarization’s Impact on Congressional Productivity
Salvatore Palomino (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

2:15 - 2:30 PM
The Swing Vote and the Attitudinal Model of the Supreme Court
Patrick Shushereba (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero
2:30 – 2:45 PM:  Break

2:45 - 3:00 PM
Anti-American propaganda through the eyes of Russian and American citizens
Ryan Bauer (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

3:00 - 3:15 PM
The Globalization of Ecocide with an Emphasis on the Arctic
Juliana Aracely Rocha (Sociology/Criminology, Undergraduate)
Faculty Mentor: Dr. Jack Fong

3:15 - 3:30 PM
Civil War in Mexico: Re-examining the Mexican drug war, Armed Conflict, and Criminal Insurgency
Zachary Foster (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

3:30 - 3:45 PM
The Land of the Free: Recidivism in the California State Prison System
Steven Gunski (Political Science, Undergraduate)
Faculty Mentor: Dr. Mario Guerrero

3:45 - 4:00 PM
Environmental Racism and Media Framing: A Qualitative Analysis of Major News Outlets’ Input of Environmental Issues
Yuritzy Hernandez (Sociology, Undergraduate)
Faculty Mentor: Dr. Stacy McGoldrick
Session 10: Engineering and Computer Science; Interdisciplinary, University Library: Special Collections Room (Fourth Floor)

1:15 - 1:30 PM
Finding the Geodesics of the Path of Light Near a Black Hole
Talin Masihimirzakhanian (Applied Mathematics, Undergraduate)
Faculty Mentor: Dr. Ryan Szypowski

1:30 - 1:45 PM
A Game-theoretic Model for Moving-Target Defense for Cyber-Physical System
Shih-Wei Fang (Computer Science, Graduate)
Faculty Mentor: Dr. Mohammad Husain

1:45 - 2:00 PM
Stochastic Rumors with a Mean Approximation
Grace Lim (Applied Mathematics, Undergraduate)
Faculty Mentor: Dr. Ryan Szypowski

2:00 - 2:15 PM
Heuristic Algorithms for Reconfigurable 3D Free Space Optical Network
Danny Luong (Computer Science, Graduate)
Faculty Mentor: Dr. Young Gilbert

2:15 - 2:30 PM
Coercion Resistant Authentication
Max Wolotsky (Computer Science, Undergraduate)
Faculty Mentor: Dr. Mohammad Husain

2:30 – 2:45 PM: Break
2:45 - 3:00 PM

*A Ground Control Station for Multi-Vehicular Data Visualization and Control*
Michael Heid, Ajay Bettadapura (Computer Science, Undergraduate)
Faculty Mentor: Dr. Subodh Bhandari

3:00 - 3:15 PM

*Quadrotor for Indoor Surveillance and Reconnaissance*
Steven Viska, Scott Kline, Harsh Shah, Giuseppe Tonini, Callie Chen (Aerospace Engineering, Undergraduate)
Faculty Mentor: Dr. Subodh Bhandari

3:15 - 3:30 PM

*Obstacle Avoidance System for UAVs Using Computer Vision*
Blin Richards, Mathew Gan, John Dayton, Jordan Quintana, James Liu, Miguel Enriquez (Aerospace Engineering, Undergraduate)
Faculty Mentor: Dr. Subodh Bhandari

3:30 - 3:45 PM

*Nonlinear Control of UAV’s Using Dynamic Inversion*
Alejandro Osorio (Aerospace Engineering, Undergraduate)
Faculty Mentor: Dr. Subodh Bhandari
“Polyphagous Shot Hole Borer Campus Survey”, Timothy Batz, Faculty Mentor: Dr. Valerie Mellano, Plant Science

“Vaccine Strategies for Protecting Mammals and Chickens from Influenza Infection using Liposomal M2e and NP Plasmid Vaccines”, Angela Beal, Faculty Mentor: Dr. Jill Adler-Moore, Biotechnology

“Factors Influencing Rates of Pollen Accumulation in Watermelon”, Jacob Cecala, Faculty Mentor: Dr. Joan Leong, Biology

“L-theanine and caffeine’s effect on cognitive performance in terms of short term memory”, Jimmy Duong and Andrew Gibson, Faculty Mentor: Dr. Bonnie Burns-Whitmore, Nutrition Science

“Determining the Prevalence of the Fungal Parasite, Nosema, in the European Honey Bee in Managed and Feral Hives”, Stephanie Duenas, Faculty Mentor: Dr. Joan Leong, Zoology

“User-Centered design for Library Mobile Websites”, David Gutierrez, Faculty Mentor: Ms. Suzanna Conrad, Computer Information Systems
“Generation of Micro-opinion from Conversational Texts”, Xing Hu, Faculty Mentor: Dr. Sukanya Manna, Computer Science

“Applying and Augmenting Hazus Software to Assess Equity Impacts of Flooding Hazards in Los Angeles”, Sara Lafia, Faculty Mentor: Dr. Richard Willson, Urban and Regional Planning

“Determining Whether Watermelon (C. lanatus) Pollen Remains Viable Over a Period of Time to Contribute to Secondary Pollen Transfer”, Christopher Lee, Faculty Mentor: Dr. Joan Leong, Biology

“Social media discourse: A case study of nonprofits’ use of interactive communication”, Kimberly Lee, Faculty Mentor: Dr. Nell Huang Horowitz, Communication (Emphasis: Public Relations)

“Research and Development for a Chemically Powered Vehicle”, Mesai Loffe, Ann Gamboa, Therese Marfori, Quynh-Vy Nguyen, Thomas Baldizon, Carlos Florez, and Andrew Nunez, Faculty Mentor: Dr. Thuan Nguyen, Chemical Engineering

“An Evaluation of Management Strategies to Protect Rocky Intertidal Species from the Impacts of Human Activities: A Look into the Past, the Present, and the Future”, Benjamin Lucas, Faculty Mentor: Dr. Jayson Smith, Biology
“Extraction of Minerals from Sea Water Desalination Concentrate Stream”, Brandon Macias and Patrick Fraire, Faculty Mentor: Dr. Ali Sharbat, Civil Engineering

“Biofilm Growth Prevention”, Ashley Matsushita, Lindsey Kabot, Selma Reyes, Aaron Alvarado, and Tanner Worden, Faculty Mentor: Dr. Nina Abramzon, Physics

“Fault Trench Documentation; Sketch Vs Imagery Trench Logging”, Rigoberto Mendoza, Faculty Mentor: Dr. Ernest Roumelis, Geology

“Temperature and Ontogenetic Scaling Effects on Strike Speed of the Deroplatys lobata and Tenodora sinensis Mantises”, Kevin Mondragon and Andrew To, Faculty Mentor: Dr. Kristopher A. Lappin, Biology (subplan: Zoology)

“Development of High Speed Single Photon Counting Sensor”, Daryl Painton, Faculty Mentor: Dr. Brita Olson, Electrical Engineering
“Real-time, Isothermal Detection of Shiga Toxin-Producing E. coli Using Recombinase Polymerase Amplification”, Stanley Park, Nur Syafiqah Darus, Matthew Fonda, Sarayu Ramnath, Brenna Santiago, and Sean Balkcom, Faculty Mentor: Dr. Shelton Murinda, Biotechnology

“Latinos Living with Diabetes; a Content Analysis of Interventions for Self-management”, Jonathan Pedroza, Faculty Mentor: Dr. Alejandro Morales, Psychology

“A Comparative Analysis of Restaurants’ Business-to-Consumer Communication Strategies on Facebook, Twitter, and Weibo”, Ruoxi Qi, Faculty Mentor: Dr. Neha Singh, Hospitality Management

“Autonomous Target Acquisition and Recognition using UAVs”, Blin Richards, Mathew Gan, John Dayton, and Jordan Quintana, Faculty Mentor: Dr. Subodh Bhandari, Aerospace Engineering

“Improvement of Powder Flow and Packing Properties Through Surface Modification”, Jesus Rivas, Tomas Bonilla, Tu Pham, Emmy Nguyen, Thu Nguyen, Desiree Nunez, Brian Leal, and Alex Paredes, Faculty Mentor: Dr. Laila Jallo, Chemical Engineering
“Comparison of Brine Water Disposal Methods”, Teresa Rodriguez, Marvin Lara, and Yesenia Pereyra, Faculty Mentor: Dr. Ali Sharbat, Civil Engineering

“Aedificatus”, Rosa Soria, Faculty Mentor: Dr. Barry Lehrman, Landscape Architecture

“Computational Microscopy on a Cellphone”, David Vega, Faculty Mentor: Dr. Ertan Salik, Physics

“X-Ray Crystallography of Alkali-Cl”, Deborah Win, Sherry Nhan, and Nadia Ariqat, Faculty Mentor: Dr. Hector Mireles, Physics

Reception and Awards Announcement
Bronco Student Center, Ursa Minor
5:15 to 6 PM

Introduction of Keynote Speaker (Dr. Frank Ewers)
Keynote Address Dr. Una Morris
Awards Announcement (Dr. Winny Dong)
Thank you and Closing
Acknowledgement

2013 CSU Student Research Conference Winners

**First Place**
Jamien Adkins, Yuriy Bazylev, Jessica Lopez, and Henry Kwong. Engineering and Computer Science, Undergraduate
Faculty Mentor: Dr. Vilupanur Ravi
Joseph Henriquez
Health, Nutrition and Clinical Sciences, Graduate
Faculty Mentor: Dr. Jill Adler-Moore
Anna Marie Storti Humanities and Letters,
Undergraduate Faculty Mentor: Dr. Anita Jain

**Second Place**
Joseph A. Wagster IV, Matthew Rose, and Hovig Yaralian.
Engineering and Computer Science, Undergraduate
Faculty Mentor: Dr. Subodh Bhandari

2013 CPP Student Research Conference Winners
Jason Alonzo, Sevana Baghdasarian, Darryl J.M. Balacanao, Roberto Carlos Flores, Joseph Henriquez, Nhu-y Hguyen, Elena Chavez-Juan, and Suming Chiang.
Jessica Lopez, Yuriy Bazlev, Henry Kwong, and Jaime Adkins.
Shawn Morrish
Krista Page
Anna Storti
Joseph A. Wagster N, Hovig Yaralian, and Matthew Rose.

Please go to [www.csupomona.edu/~cppsrc](http://www.csupomona.edu/~cppsrc) for more information regarding the 2013 CPP SRC.
Special Thanks
Cal Poly Pomona Alumni* Judges and Moderators

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Kellogg Honors College
Market Research Club
McNair Scholars Club
Psi Chi International Honor Society for Psychology

Contributors

Cal Poly Pomona 75th Anniversary Fund
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