



Western States Section/Combustion Institute

Fall 2009 Meeting

October 26 & 27, 2009 - University of California at Irvine
Irvine, California



UCI IRVINE

THE HENRY SAMUELI
SCHOOL OF ENGINEERING



Meeting Rooms

Invited presentations will be in Pacific C

Session A is in Pacific A

Session B is in Pacific B

Session C is in Pacific C

Session D is in Moss Cove

Women in Combustion Break on Monday afternoon is in Doheny Beach D

Monday, 26, October 2009

Welcome Address

Invited Presentation: Challenges and opportunities for urban air quality.

Dr. Matt Miyasato, South Coast Air Quality Management District

Session 1A: Catalytic Combustion **Session 1B:** IC Engines **Session 1C:** New Technology **Session 1D:** Fire

BREAK

Session 2A: Laminar Flames **Session 2B:** Gas Turbines **Session 2C:** New Technology **Session 2D:** Fire

Invited Presentation: Challenges and opportunities for instrumentation for monitoring regulated species.

Dr. Peter DeBarber – Horiba Instruments Incorporated

Session 3A: Laminar Flames **Session 3B:** Soot **Session 3 C:** New Technology **Session 3D:** Fire

BREAK Women in Combustion Meeting

Session 4A: Detonations & Laminar Flames **Session 4B:** IC Engines **Session 4C:** Reaction Kinetics **Session 4D:** Heterogeneous Combustion

RECEPTION

Tuesday, 27 October 2009

Invited Presentation: Challenges and opportunities of sustainable energy from coal.

Professor Randy Seeker, Adjunct Professor at UC, Irvine and VP, Process Technology, Calera Corporation

Session 5A: Turbulent Flames **Session 5B:** IC Engines **Session 5C:** Reaction Kinetics **Session 5D:** Stationary Combustion

BREAK

Session 6A: Alternate Fuels **Session 6B:** IC Engines **Session 6C:** Flame Structure **Session 6D:** Spray Combustion

ADJOURN

Invited presentations will be in Pacific C

Session A is in Pacific A Session B is in Pacific B Session C is in Pacific C Session D is in Moss Cove

Women in Combustion Break on Monday afternoon is in Doheny Beach D

**2009 Fall TECHNICAL MEETING
WESTERN STATES SECTIONS OF THE COMBUSTION INSTITUTE
Hosted by University of California at Irvine
Monday, 26 October 2009**

- 7:00** **Registration**
- 8:00** **Welcome Address: JoAnn S. Lighty, Chair, Western States Section**
- 8:10** **Welcome Address: Derek Dunn-Rankin, Chair, Mechanical and Aerospace Engineering,
University of California, Irvine**
- 8:30** **Invited Presentation: Challenges and opportunities for urban air quality.**
Dr. Matt Miyasato, South Coast Air Quality Management District
Session Chair: Jerry Cole

Announcements: Vincent McDonell, University of California, Irvine

	Session 1A: Catalytic Combustion (Pacific A) Session Chair: U. Niemann	Session 1B: I.C. Engines (Pacific B) Session Chair: A. Karagozian	Session 1C: New Technology (Pacific C) Session Chair: J. Ahn	Session 1D: Fire (Moss Cove) Session Chair: S. Mahalingam
9:35	09F-01 Catalytic ignition temperatures of ethanol-water-oxygen-nitrogen mixtures. <i>Joshua G. Gibson, J. Steciak, R. Budwig University of Idaho</i>	09F-04 Low temperature oxidation of hexane. <i>Philipp A. Boettcher, Joseph E. Shepherd, Raza Akbar California Institute of Technology</i>	09F-07 Preliminary analysis of a Chemical Looping Combustion of coal scheme by ASPEN PLUS simulations. <i>Asad H. Sahir, Adel F. Sarofim, JoAnn S. Lighty University of Utah</i>	09F-10 The B-number as a criterion for commodity classification. <i>M.J. Gollner¹, K. Overholt², A.S. Rangwala², F.A. Williams¹, J. Perricone³ ¹University of California, San Diego ²Worcester Polytechnic Institute ³Schirmer Engineering</i>

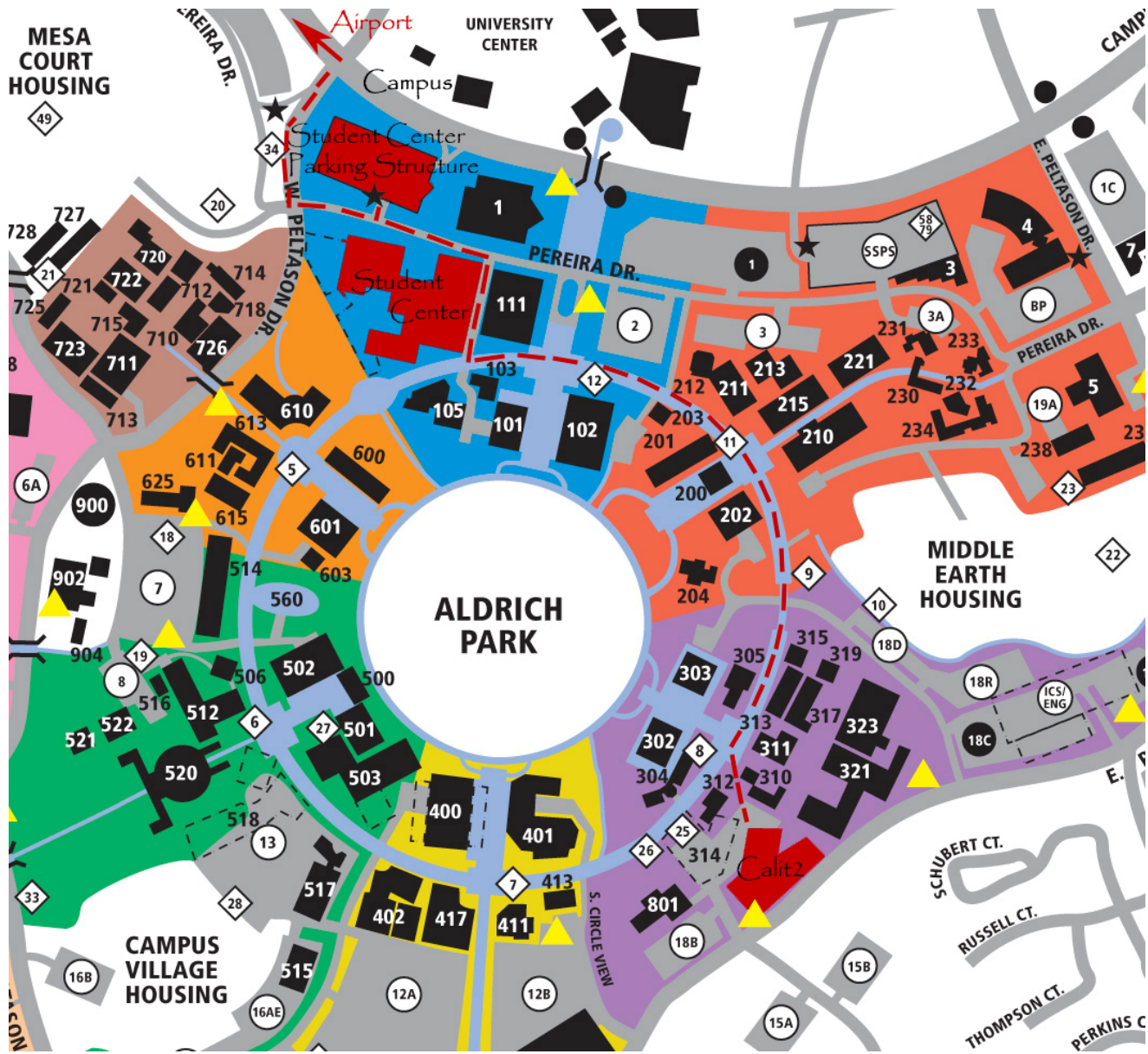
9:55	09F-02 Temperature-dependent chemical kinetic model of methane oxidation over palladium surfaces. <i>Tsutomu Shimizu, Hai Wang</i> <i>University of Southern California</i>	09F-05 Investigation of knock prevention in high efficiency, zero emissions H₂-O₂-Ar internal combustion. <i>V.H. Rapp, Nick Killingsworth, Salvador Aceves, J.Y. Chen, Robert Dibble</i> <i>University of California, Berkeley</i>	09F-08 The effect of secondary flow on the extinction limit of Swiss roll burner. <i>Chien-Hua Chen, Paul D. Ronney</i> <i>University of Southern California</i>	09F-11 Critical mass flux at ignition in reduced pressure environments. <i>Sonia Fereres¹, Carlos Fernandez-Pello¹, David Urban², Gary Ruff²</i> ¹ University of California, Berkeley ² NASA
10:15	09F-03 3-D numerical modeling of a filling catalytic plasma torch. <i>Ronald J. Royce, J. Steciak, R. Budwig</i> <i>University of Idaho, Boise</i>	09F-06 Fuel efficiency and emission study of a small scale Spark Assisted Compression Ignition (SACI) engine. <i>Jae Hyung Lim, Derek Dunn-Rankin, John Garman, Ryan Banuelos, Martin Tajiboy, Syed Zulkharnain</i> <i>University of California, Irvine</i>	09F-09 Computational and experimental investigation of a turbine-less jet engine concept. <i>Chivey Wu, Long Ly, Nhan Doan</i> <i>California State University</i>	09F-12 Fluid dynamics structures within and around a spreading laboratory scale surface fire. <i>Jesse Lozano¹, Watcharapong Tachajapong¹, Shankar Mahalingam¹, Marko Princevac¹, David R. Weise²</i> ¹ University of California, Riverside ² USDA Forest Service
10:35	BREAK			
	Session 2A: Laminar Flames (Pacific A) Session Chair: H. Najm	Session 2B: Gas Turbines (Pacific B) Session Chair: M.K. Bobba	Session 2C: New Technology (Pacific C) Session Chair: A.H. Sahir	Session 2D: Fire (Moss Cove) Session Chair: M.J. Gollner
10:55	09F-13 Combustion of mixtures of producer gas and methane in non-premixed flows. <i>Ulrich Niemann, Christian Di Norscia, Kalyanasundaram Seshadri</i> <i>University of California, San Diego</i>	09F-17 Shear layer instabilities in low density jets in crossflow. <i>K. Canzonieri, D. Getsinger, C. Hendrickson, O.I. Smith, A.R. Karagozian</i> <i>UCLA</i>	09F-21 Thermal transpiration based pumping and power generation using solid oxide fuel cells. <i>Abhimanyu Bhat¹, Cory Bloomquist¹, Jeongmin Ahn¹, Paul D. Ronney²</i> ¹ Washington State University ² University of Southern California	09F-25 Ignition and suppression of smoldering coal fires in small-scale experiments <i>Rory Hadden, Guillermo Rein</i> <i>University of Edinburgh</i>

11:15	<p>09F-14 Investigation of effects of strain rate and diluents on extinction limits of premixed syngas flame. <i>Rajat Arora, Nan Ding, Seong-Young Lee</i> <i>Michigan Technological University</i></p>	<p>09F-18 Flame-holding in cavity adjacent to accelerating, turning flow channel. <i>Ben Colcord, Feng Liu, W.A. Sirignano</i> <i>University of California, Irvine</i></p>	<p>09F-22 Dye sensitized solar cells fabricated by flame stabilized on a rotating surface. <i>Saro Memarzadeh, Denis J. Phares,</i> <i>Hai Wang</i> <i>University of Southern California</i></p>	<p>09F-26 Ignition of combustible fuel beds by embers and heated particles. <i>C. Lautenberger¹, S. Fereres², S. Scott¹,</i> <i>R. Hadden², C. Fernandez-Pello²</i> ¹<i>University of California, Berkeley</i> ²<i>University of Edinburgh</i></p>
11:35	<p>09F-15 Propagation, extinction, and ignition of CH₄/H₂/CO/air mixtures. <i>Okjoo Park, Peter S. Veloo, Ning Liu,</i> <i>Fokion N. Egolfopoulos</i> <i>University of Southern California</i></p>	<p>09F-19 Turbulent combustion in cavity stabilized accelerating flows. <i>Srivatsava Puranam, Derek Dunn-Rankin</i> <i>University of California, Irvine</i></p>	<p>09F-23 A high performance flame fuel cell. <i>Kang Wang, Jeongmin Ahn</i> <i>Washington State University</i></p>	<p>09F-27 An investigation of the effect of crown fuel separation on the dynamics of multiple crown fire initiation in shrub fuels. <i>Jesse Lozano¹,</i> <i>Watcharapong Tachajapong¹,</i> <i>Shankar Mahalingam¹, David R. Weise²</i> ¹<i>University of California, Riverside</i> ²<i>USDA Forest Service</i></p>
11:55	<p>09F-16 Propagation and extinction of cyclohexane/air, methyl-cyclohexane/air and <i>n</i>-butyl-cyclohexane/air mixtures. <i>Chunsheng Ji, Fokion N. Egolfopoulos</i> <i>University of Southern California</i></p>	<p>09F-20 The role of autoignition versus flame propagation in lean premixed combustion in gas turbines. <i>Andrew North, Robert Dibble,</i> <i>Jyh-Yuan Chen, Anthony DeFilippo</i> <i>University of California, Berkeley</i></p>	<p>09F-24 The influence of hydrogen and carbon monoxide on structure and burning velocity of methane flames. <i>Priyank Saxena¹,</i> <i>Kalyanasundaram Seshadri²</i> ¹<i>Solar Turbines</i> ²<i>University of California, San Diego</i></p>	<p>09F-28 Influence of polyethylene cover of silvicultural burn piles on emissions. <i>SeyedEhsan Hosseini¹, Qi Li¹,</i> <i>Manish Shrivastava¹, David Weise²,</i> <i>David Cocker¹, Heejung Jung¹</i> ¹<i>University of California, Riverside</i> ²<i>USDA Forest Service</i></p>
12:15	LUNCH			

13:30	Invited presentation: Challenges and opportunities for instrumentation for monitoring regulated species. <i>Dr. Peter DeBarber, Horiba Instruments Incorporated</i> Session Chair: Derek Dunn-Rankin			
	Session 3A: Laminar Flames (Pacific A) Session Chair: P.S. Veloo	Session 3B: Soot (Pacific B) Session Chair: J.Y. Chen	Session 3C: New Technology (Pacific C) Session Chair: P.D. Ronney	Session 3D: Fire (Moss Cove) Session Chair: F.J. Miller
14:35	09F-29 Time integration of chemical kinetics with computational singular perturbation and tabulation. <i>Bert Debusschere¹, Blane Rhoads¹, Habib Najm¹, Youssef Marzouk², Mauro Valorani³, Dimitris Goussis⁴, Michael Frenklach^{5,6}</i> ¹ Sandia National Laboratories ² Massachusetts Institute of Technology ³ Universita di Roma ⁴ National Technical University of Athens ⁵ University of California, Berkeley ⁶ Lawrence Berkeley National Laboratory	09F-32 Studies of soot oxidation on a two-stage burner under fuel-lean conditions. <i>Carlos A. Echavarria, I. Cristina Jaramillo, Adel F. Sarofim, JoAnn S. Lighty</i> <i>University of Utah</i>	09F-35 Reforming of jet A fuel via partial oxidation over molybdenum dioxide. <i>Oscar Marin-Flores¹, Timothy Turba¹, Kang Wang¹, Joe Breir², Jeongmin Ahn¹, M. Grant Norton¹, Su Ha¹</i> ¹ Washington State University ² Boeing Commercial Airplanes	09F-38 Laboratory study of particulate emissions factors of prescribed wildland fires. <i>Trevor Maynard¹, Ehsan Hosseini¹, Marko Princevac¹, ShankarMahalingam¹, Heejung Jung¹, David Cocker¹, David R. Weise², WeiMin Hao², Robert Yokelson³, Wayne Miller¹</i> ¹ University of California, Riverside ² USDA Forest Service ³ University of Montana
14:55	09F-30 Characterization of flat and freely propagating hydrogen flames. <i>Xinfeng Gao, Marcus Day, John Bell</i> <i>Lawrence Berkeley National Laboratory</i>	09F-33 Weakly bound carbon-carbon bonds in acenaphthylene derivatives and hexaphenylethane. <i>Enoch Dames, Baptiste Sirjean, Hai Wang</i> <i>University of Southern California</i>	09F-36 Ignition characteristics of Single-Walled Carbon Nanotubes (SWCNTs) utilizing a camera flash for distributed ignition of liquid sprays. <i>B. Chehroudi, S.A. Danczyk, C. Morgan, A. Badakhshan</i> <i>Edwards Air Force Base</i>	09F-39 Thermal protective performance of fire blanket materials for structure protection in wildland-urban interface fires. <i>Fumiaki Takahashi¹, Amber Abbott¹, Timothy M. Murray¹, Sheng-Yen Hsu¹, James S. T'ien¹, Sandra L. Olson²</i> ¹ Case Western Reserve University ² NASA Glenn Research Center

15:15	09F-31 A high-order projection scheme for AMR computations of chemically reacting flows. <i>Cosmin Safta, Jaideep Ray, Habib Najm</i> <i>Sandia National Laboratories</i>	09F-34 LII spectra and simultaneous imaging with 532 and 1064 nm excitation at LTC Diesel engine conditions. <i>Mohan K. Bobba, Mark P.B. Musculus</i> <i>Sandia National Laboratories</i>	09F-37 Ultra sensitive nanoporous TiO₂ gas sensing films synthesized in a premixed stagnation flame. <i>Erik Tolmachoff, Hai Wang</i> <i>University of Southern California</i>	09F-40 Chemical and physical characterization of wood smoke under controlled conditions. <i>SeyedEhsan Hosseini¹, Qi Li¹, Arthur Miller², David Cocker¹, Manish Shrivastava¹, David Weise³, WeiMin Hao³, Robert Yokelson⁴, Heejung Jung¹</i> ¹ University of California, Riverside ² NIOSH ³ USDA Forest Service ⁴ University of Montana
15:35	BREAK Women in Combustion Break in Doheny Beach D			
	Session 4A: Detonations and Laminar Flames (Pacific A) Session Chair: M. Day	Session 4B: I.C. Engines (Pacific B) Session Chair: J. Steciak	Session 4C: Reaction Kinetics (Pacific C) Session Chair: E. Dames	Session 4D: Heterogeneous Combustion (Moss Cove) Session Chair: S. Fereres
16:00	09F-41 Multidomain spectral collocation method for three-dimensional perturbations in idealized CJ detonations. <i>Carlos Chiquete, Anatoli Tumin,</i> <i>University of Arizona</i>	09F-45 Modeling the fuel spray and combustion process of the Ignition Quality Tester™ with KIVA-3V. <i>Gregory E. Bogin Jr.¹, Anthony M. Dean¹, Anthony DeFilippo², J.Y. Chen², Gregory Chin², Jon Luecke³, Matthew A. Ratcliff², Bradley T. Zigler³</i> ¹ Colorado School of Mines ² University of California, Berkeley ³ National Renewable Energy Laboratory	09F-49 Chemical kinetic study of the oxidation of toluene and related cyclic compounds. <i>Marco Mehl¹, R. Fietzek², William J. Pitz¹, Alessio Frassoldati², Tiziano Faravelli², Eliseo Ranzi²</i> ¹ Lawrence Livermore National Laboratory ² Politecnico di Milano	09F-53 Kinetics of soot oxidation by NO₂ using the HTO-TDMA method. <i>Hao-Wei Wu, Manish Shrivastava, Anh Nguyen, Heejung Jung</i> <i>University of California, Riverside</i>

16:20	<p>09F-42 A model for the spatial and temporal distribution of pressure during ideal detonation reflection. <i>James Karnesky, Jason Damazo, Joseph E. Shepherd</i> <i>California Institute of Technology</i></p>	<p>09F-46 Pressure atomization of water-in-oil emulsions for gas turbines. <i>C.D. Bolszo, A.A. Narvaez, S. Abbilian, A. Jepsen, D. Dunn-Rankin, V.G. McDonell, W.A. Sirignano</i> <i>University of California, Irvine</i></p>	<p>09F-50 Quantitative analysis of hierarchical strategies of building combustion reaction models. <i>David A. Sheen, Hai Wang</i> <i>University of Southern California</i></p>	<p>09F-54 Modeling soot oxidation and fragmentation in laminar premixed flames. <i>Michael E. Mueller¹, Guillaume Blanquart², Heinz Pitsch¹</i> ¹<i>Stanford University</i> ²<i>California Institute of Technology</i></p>
16:40	<p>09F-43 A comparative study on the extinction characteristics of non-premixed dimethyl ether and ethanol flames. <i>Yang Lee Wang, Peter Veloo, Fokion Egolfopoulos, T.T. Tsotsis</i> <i>University of Southern California</i></p>	<p>09F-47 An experimental and analytical study on heat flux under operating conditions in a constant volume combustion chamber. <i>Chiwon Kim</i> <i>Kyungnam University</i></p>	<p>09F-51 Evaluation of transient performances of reduced mechanisms in turbulent premixed jet flames using Linear Eddy Model. <i>Li-Chun Chien, Jyh-Yuan Chen</i> <i>University of California, Berkeley</i></p>	<p>09F-55 Copper oxide as an oxygen carrier for chemical looping combustion. <i>Eli A. Goldstein, Reginald E. Mitchell</i> <i>Stanford University</i></p>
17:00	<p>09F-44 Studies of <i>n</i>-propanol/air and iso-propanol/air premixed flames. <i>Peter S. Veloo¹, Fokion N. Egolfopoulos¹, Charles K. Westbrook²</i> ¹<i>University of Southern California</i> ²<i>Lawrence Livermore National Laboratory</i></p>	<p>09F-48 Detailed chemical kinetic mechanism for methane and ethane combustion including NO_x emissions for gas turbines applications. <i>Chitralkumar V. Naik, Ellen Meeks, Scott Drennan</i> <i>Reaction Design</i></p>	<p>09F-52 Synthesis of metal particles from heavy fuel oil using spray flame pyrolysis. <i>Zhongqing Zheng, Heejung Jung</i> <i>University of California, Riverside</i></p>	<p>09F-56 Effect of CO₂ gasification reaction on oxy-combustion of pulverized coal char. <i>Ethan S. Hecht, Christopher R. Shaddix</i> <i>Sandia National Laboratories</i></p>
18:00	<p>RECEPTION ADJOURN FOR EVENING</p>			



Monday Evening Reception Logisits.

Follow signs to Cal(IT)2 through Aldrich Park.

Return to Parking Structure from Cal(IT)2 via footpath shown as dashed lines

Tuesday, 27 October 2009

8:30: Invited Presentation: Challenges and opportunities of sustainable energy from coal.

Professor Randy Seeker, Adjunct Professor, UC Irvine

VP, Process Technology, Calera Corporation

Session Chair: Scott Samuelsen

Announcements: Vincent McDonell

	Session 5A: Turbulent Flames (Pacific A) Session Chair: G. Blanquart	Session 5B: I.C. Engines (Pacific B) Session Chair: G. Bogin	Session 5C: Reaction Kinetics (Pacific C) Session Chair: B. Colcord	Session 5D: Stationary Combustion (Moss Cove) Session Chair: E.S. Hecht
9:35	09F-57 Soot formation in a turbulent JP-8 jet flame investigated by 2-D laser-induced incandescence and planar laser-induced fluorescence. <i>Jiayao Zhang, Christopher R. Shaddix, Robert W. Schefer Sandia National Laboratories</i>	09F-61 An experimental and analytical study of combustion and emission characteristics with varying constituents of intake charges in SI engine. <i>Chiwon Kim Kyungnam University</i>	09F-65 Hydrogen peroxide decomposition rate: A shock tube study using tunable laser absorption of H₂O near 2500 μm. <i>Zekai Hong, Aamir Farooq, Ethan A. Barbour, David F. Davidson, Ronald K. Hanson Stanford University</i>	09F-69 New tools for diagnosing SCR system performance issues. <i>Larry Muzio, Randy Smith, T.D. Martz Fossil Energy Research Corp.</i>
9:55	09F-58 A comparison of direct numerical simulations with the one-dimensional turbulence model for a syngas jet flame. <i>Naveen Punati¹, James C. Sutherland¹, Evatt Hawkes², Alan R. Kerstein³, Jacqueline H. Chen³ ¹University of Utah ²University of New South Wales ³Sandia National Laboratories</i>	09F-62 Increasing signal-to-noise ratio of spark-plug ion sensors through addition of salt-based fuel additives. <i>Samveg Saxena, T. Dillstrom, J.-Y. Chen, Robert Dibble University of California, Berkeley</i>	09F-66 Shock tube ignition delay times measurements of propane/O₂/argon mixtures at near-constant-volume conditions. <i>K.Y. Lam, D. Vinh, S. Wang, Z. Hong, D.F. Davidson, R.K. Hanson Stanford University</i>	09F-70 Numerical and experimental study of mixing of gaseous fuels. <i>Amin Akbari, Scott Hill, Patrick Randall, Vincent McDonell, Scott Samuelsen University of California, Irvine</i>

10:15	09F-59 Turbulence-flame interactions in lean premixed hydrogen. <i>A.J. Aspden, M.S. Day, J.B. Bell</i> <i>Lawrence Berkeley National Laboratory</i>	09F-63 Design of low cost, partial flow, CVS dilution tunnel with tapered element oscillating microbalance. <i>Victor Christensen, Steven Beyerlein</i> <i>University of Idaho</i>	09F-67 A shock-tube study on the pyrolysis of 1,4-dioxane. <i>Robert S. Tranter¹, Xueliang Yang¹, Bind R. Giri¹, John H. Kiefer², Ahren W. Jasper³</i> ¹ Argonne National Laboratory ² University of Illinois at Chicago ³ Sandia National Laboratory	09F-71 Comparison of mercury capture by sorbents and ash from coal combustion flue gas. <i>Kyung-Man Kim, Feng Jiang, John Garman, Derek Dunn-Rankin</i> <i>University of California, Irvine</i>
10:35	09F-60 Local quenching recovery mechanisms of interacting lean premixed and diffusion turbulent flames <i>Y. Yahagi¹, R. Kaminishi¹, T. Kawanami¹, I. Makino²</i> ¹ Shibaura Institute of Technology ² Tohoku University	09F-64 Statistical analysis of electrostatic spark ignition. <i>Sally Bane, Joseph E. Shepherd</i> <i>California Institute of Technology</i>	09F-68 Thermal dissociation of ethyl iodide in a shock-tube by laser schlieren densitometry. <i>Xueliang Yang, Robert S. Tranter</i> <i>Argonne National Laboratory</i>	09F-72 Characterization of the ion signal from the combustor of a 60 kW gas turbine engine. <i>Tavis Werts, Vincent McDonell, Scott Samuelson</i> ¹ University of California, Irvine
10:55	BREAK			
	Session 6A: Alternate Fuels (Pacific A) Session Chair: D.F. Davidson	Session 6B: I.C. Engines (Pacific B) Session Chair: S. Bane	Session 6C: Flame Structure (Pacific C) Session Chair: M. Mehl	Session 6D: Spray Combustion (Moss Cove) Session Chair: C.R. Shaddix
11:15	09F-73 Evaporative properties of biodiesels. <i>Bradley S. McGary, Judi Steciak, Ralph Budwig, Steve Beyerlein</i> <i>University of Idaho, Boise</i>	09F-76 An experimental and kinetic study of alkane autoignition at high pressure and intermediate temperatures. <i>David Beerer, Vincent McDonell</i> <i>University of California, Irvine</i>	09F-79 Exploring the effects of gravity on a coflow diffusion flame in an electric field. <i>Sunny Karmani¹, Miles Schoen², Peter Coffin², Derek Dunn-Rankin¹, Fumiaki Takahashi³, Zeng-Guang Yuan³, Dennis Stocker²</i> ¹ University of California, Irvine ² NASA Glenn Research Center ³ National Center for Space Exploration Research on Fluids and Combustion	09F-82 Droplet combustion in the presence of altered acceleration fields via acoustic excitation. <i>S. Teshome, O.I. Smith, A.R. Karagozian</i> <i>UCLA</i>

11:35	<p>09F-74 Laser-induced incandescence measurements of soot production in biodiesel diffusion flame. Michael Tran¹, Trinh Pham², Derek Dunn-Rankin¹, John, Garman¹ ¹University of California, Irvine ²California State University, Los Angeles</p>	<p>09F-77 SI to HCCI operation of a small-scale IC engine. Peter Therkelsen, Derek Dunn-Rankin University of California, Irvine</p>	<p>09F-80 Assessment of counter flow arrangement to measure laminar burning velocities using direct numerical simulations. Varun Mittal¹, Heinz Pitsch¹, Fokion Egolfopoulos² ¹Stanford University ²University of Southern California</p>	<p>09F-83 Combustion and flammability of methanol droplets in air-diluent environments with reduced or normal gravity. Benjamin D. Shaw, Jingbin Wei University of California, Davis</p>
11:55	<p>09F-75 Combustion characteristics of conventional and synthetic jet fuels. Chunsheng Ji, Yang L. Wang, Hai Wang, Fokion N. Egolfopoulos University of Southern California</p>	<p>09F-78 Development of a consistent crevices model for multi-zone modeling of piston engines. Jyh-Yuan Chen, Gregory Chin University of California, Berkeley</p>	<p>09F-81 Detailed numerical simulation of a <i>n</i>-heptane edge flame. Jens Prager¹, Habib N. Najm¹. Mauro Valorani², Dimitris A. Goussis³ ¹Sandia National Laboratories ²Sapienza University ³National Technical University of Athens</p>	<p>09F-84 Transient burning of a convective fuel droplet. Guang Wu, William A. Sirignano University of California, Irvine</p>
12:15				<p>09F-85 The effect of wind on the flame characteristics of individual leaves. Wesley J. Cole¹, McKaye H. Dennis¹, Thomas H. Fletcher¹, David R. Weise² ¹Brigham Young University ²USDA Forest Service</p>
12:35	ADJOURN			

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Student Center Directory

Meeting Rooms

- A307 Aliso Beach Room A
- A309 Aliso Beach Room B
- G480 Balboa Island Room A
- G478 Balboa Island Room B
- G477 Balboa Island Room C
- G476 Balboa Island Room D
- G474 Balboa Island Room E
- A123 Crescent Bay Room A
- A124 Crescent Bay Room B
- A125 Crescent Bay Room C
- A126 Crescent Bay Room D
- A220 Crystal Cove Auditorium
- G303 Dean of Students Conference Room
- A134A Doheny Beach Room A
- A134B Doheny Beach Room B
- A134C Doheny Beach Room C
- A134D Doheny Beach Room D
- A103 Emerald Bay Room A
- A104 Emerald Bay Room B
- A105 Emerald Bay Room C
- A106D Emerald Bay Room D
- A106E Emerald Bay Room E
- G319C Health Education Conference Room
- C119 Lido Isle Room A
- C117 Lido Isle Room B
- C105 Moss Cove Room A
- C107 Moss Cove Room B
- G412 Newport Beach Room A
- G413 Newport Beach Room B
- G411 Newport Beach Room C
- G118A Pacific Ballroom A
- G118B Pacific Ballroom B
- G118C Pacific Ballroom C
- G118D Pacific Ballroom D
- A310 Student Center Conference Room
- G242 Student Government Conference Room
- C106 Woods Cove Room A
- C108 Woods Cove Room B
- C110 Woods Cove Room C

Services & Administrative Offices

- C132 Anteater Publishing
- G301 Center for Service in Action/ Veteran Services
- G319 Health Education
- G458 Housing Administrative Services
- G465 Housing Outreach Services
- A102 Information Center
Located by Visitor Center
- C249 Information Center
Located by Ring Mall
- G302 Lesbian, Gay, Bisexual, Transgender Resource Center
- G308 Office of the Dean of Students
- G306 Dean of Students Campus Organization Resources and Education (CORE Office)
- G306G Dean of Students Poster Room
- G308B Dean of Students Mail Room
- G318 Scheduling & Conference Services
- A311 Student Center Administrative Offices/ UCI Hospitality & Dining Services/ UCI Dining & Catering
- G244 Student Government (ASUCI/AGS)
- C136 UCI Bookstore Marketing
- A138 Visitor Center
- G205 Zot Zone Games Room

Food Services

- C215 Anthill Pub & Grille
- C200 East Food Court
- B203 Starbucks Coffee
- B130B Vending
- A230 West Food Court
- G234 Zot-N-Go

Retail

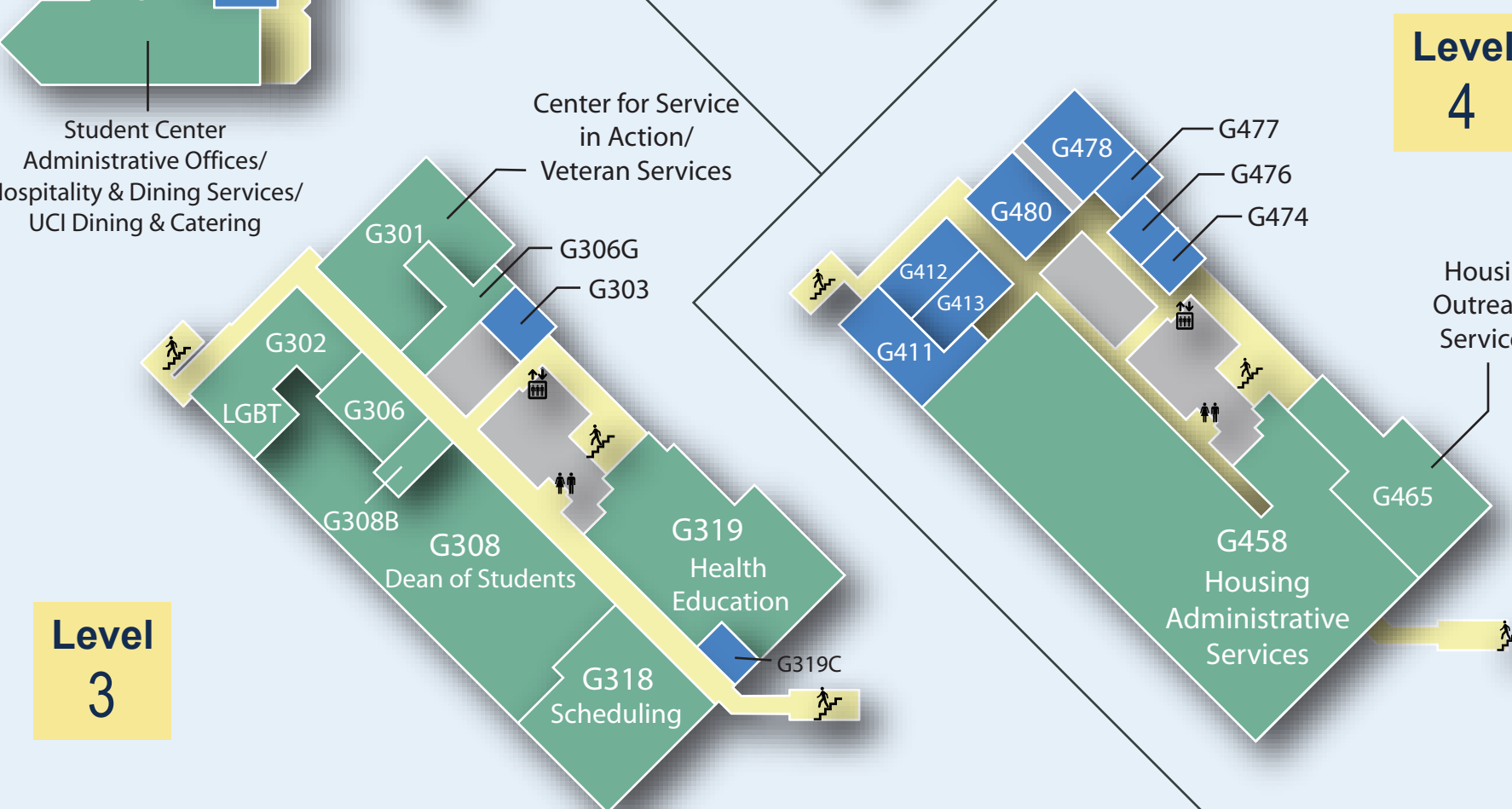
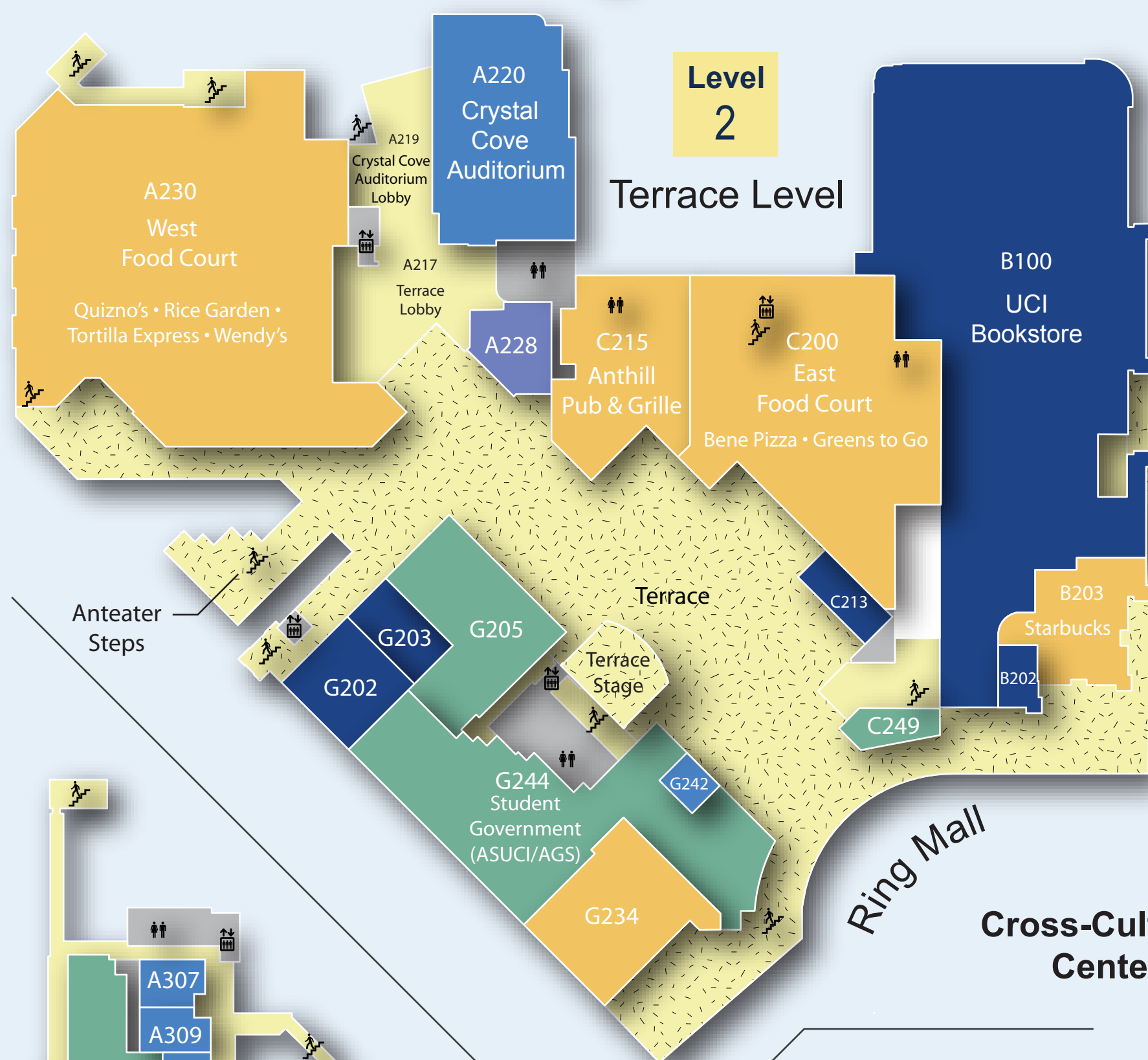
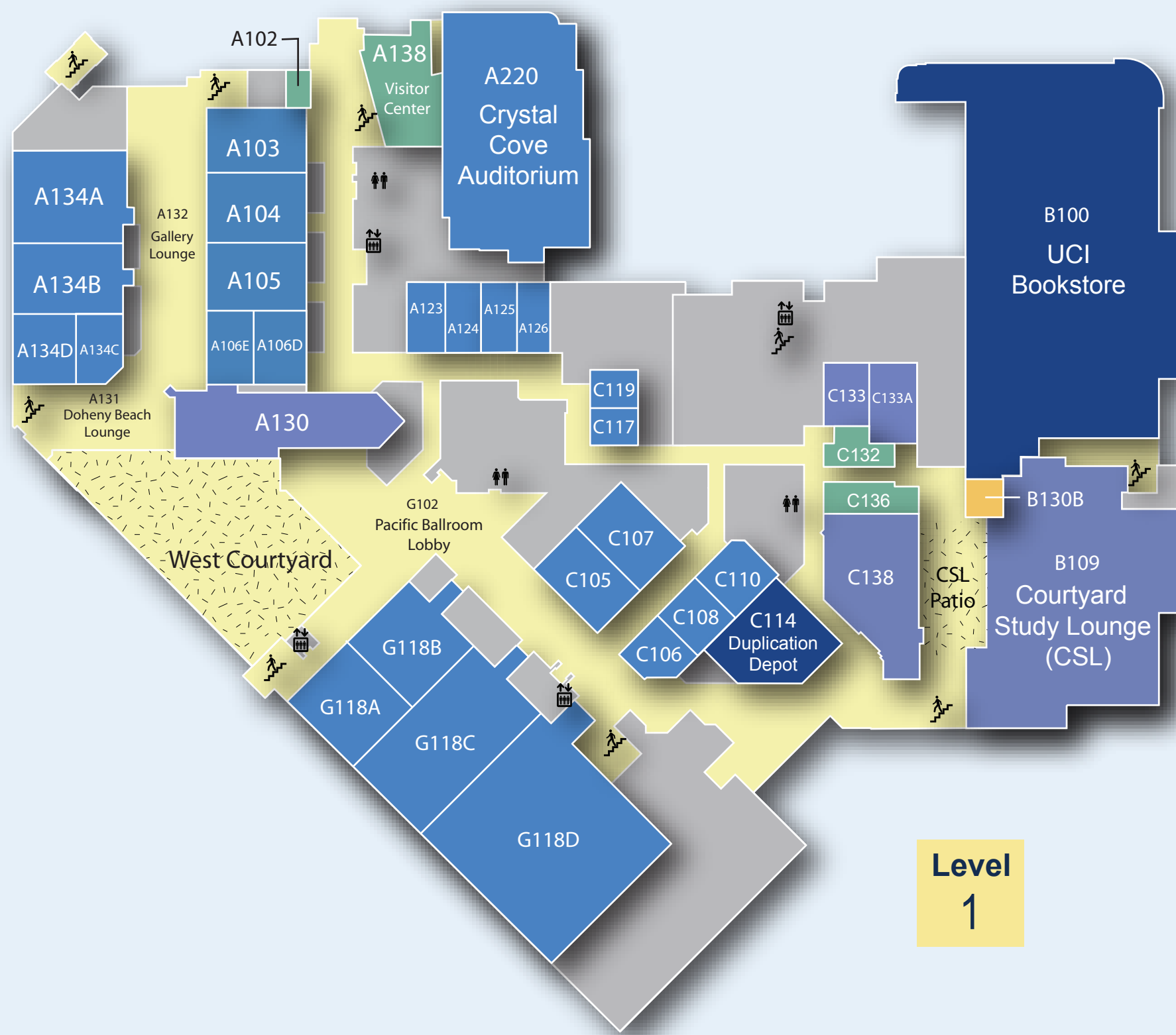
- C213 ATMs
- C114 Duplication Depot
- G202 STA Travel/Wells Fargo/OCTFCU
- B202 Special Days
- B100 UCI Bookstore
- G203 UCI Items

Study/Lounge/Lobby

- B109 Courtyard Study Lounge
- A219 Crystal Cove Auditorium Lobby
- A131 Doheny Beach Lounge
- A132 Gallery Lounge
- C138 NACS @ Student Center
- G102 Pacific Ballroom Lounge
- A217 Terrace Lobby
- A228 Terrace Lounge
- C133 TV Lounge A
- C133A TV Lounge B
- A130 West Courtyard Lounge

Outdoor Areas

- Anteater Steps
- Courtyard Study Lounge Patio
- Terrace
- Terrace Stage
- West Courtyard



Restroom
 Stairs
 Elevator
 Prefunction/Corridor
 Support Facilities (Restrooms, Storage, Mechanical)