Curriculum Vitae

Marko Princevac

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Education

2003: Ph.D. in Mechanical Engineering, Arizona State University, U.S.A.

1997: B.Sc. in Mechanical Engineering and Naval Architecture, University of Belgrade, Serbia.

Work Experience in Academia

- 2020- Vice Provost of International Affairs present: University of California, Riverside
- 2020- Interim Vice Provost of International Affairs
- 2022: University of California, Riverside
- 2017- Associate Dean for Student Academic Affairs, Marlan and Rosemary Bourns College of Engineering,
- 2022: University of California, Riverside
- 2016- Interim Associate Dean for Student Academic Affairs, Bourns College of Engineering, University of
- 2017: California, Riverside
- 2016- Professor. University of California, Riverside, Bourns College of Engineering,
- present: Department of Mechanical Engineering
- 2010- Associate Professor. University of California, Riverside, Bourns College of Engineering,
- 2016: Department of Mechanical Engineering
- 2004- Assistant Professor. University of California, Riverside, Bourns College of Engineering,
- 2010: Department of Mechanical Engineering
- 2003- Post Doctoral Research Associate. Arizona State University, Mechanical and Aerospace
- 2004: Engineering.
- 1999 Research Assistant, Arizona State University.
- -2003: Research consisted of laboratory experiments, field measurements and theoretical analysis, with the main goal being better understanding of nature and structure of thermally driven flows in complex terrain.
- 2000: Teaching Assistant, Arizona State University.

 Served as a Teaching Assistant for two undergraduate courses (under the auspices of the GAANN program).
- 1997 Assistant Lecturer and Research Assistant, University of Belgrade.
- -1999: Served as an Assistant Lecturer for three upper level undergraduate courses and doing research on ship resistance and propulsion of semi-displacement hull forms.

Industrial Work Experience

- 2013-2018: "Solar Turbines", San Diego, CA, U.S.A. Swirling cooling of the first turbine stage in charge of a test cell.
- 2012-2013: "World Kitchen"/"Snapware", Mira Loma, CA. Consulting on fire polishing.
- 1995: "Premez Clados Del Norte", Matamoros, Tamaulipas, Mexico. Working as a laboratory and field supervisor.
- 1994: "Roller-Bearing Industry Belgrade", Serbia. Working on problems of final polishing of the inner and outer bearing rings.

Professional Affiliations

The American Society of Mechanical Engineers (ASME, Fellow) NAFSA: Association of International Educators (NAFSA) Association of International Education Administrators (AIEA)

Projects

A validated second hand smoking exposure model for Electronic Nicotine Delivery Systems (ENDS), TRDRP, co-PI, 2019-2022

Clean Stacking Options and Regional IAP Scenarios for Rural Mexico, NIH, co-PI, 2019-2020

Systematic Exploration of the Ignition of Ladder Fuels by a Wildland Flame, USDA, PI, 2019-2021

Training from Undergraduate through Navy Engagement (TUNE), ONR, PI, 2018-2021

Understanding the Role of Fluidic Microenvironment in Stem Cell Suspension Culture toward Scalable Biomanufacturing, NSF, co-PI, 2018-2021

Wildfire Ignition by Mechanized Equipment, Phase 2 - Experiments, USDA FS San Dimas, PI, 2016-2017.

Fundamental Measurements and Modeling of Prescribed Fire Behavior in the Naturally Heterogeneous Fuel Beds of Southern Pine Forests, DoD SERDP, co-PI, 2016-2020

Front- and Aft- Disc Cavity Ingestion, Solar Turbines, PI, 2016-2017

Wildfire Ignition by Mechanized Equipment, USDA FS San Dimas, PI, 2015-2016.

A Global Map of Feasible Residential Solutions, Emphasizing Stoves with Space Heating Uses, US EPA, Co-PI, 2014-2017.

Impact of Air-Lubrication on Propulsion Efficiency, UCR COR Grant, PI, 2014-2015.

Interception of Smoke by a Forest Canopy, PSW FS, Co-PI, 2014.

Measurements of thermal load on fire engines, FS SDTDC, PI, 2013.

Chaparral Fire – Passive or Active Crown Fire, PSW FS, PI, 2013-2015.

Cooling of the first turbine stage, Solar Turbines, PI, 2013-2016.

Ecosystem Ozone (O3) Flux and Stomatal Uptake: Assessment of Environmental Controls and Functional Responses of Mixed Conifer Sites Along Two Pollution Gradients. USDA PSW, Co-PI, 2012-2013.

Systematical physical modeling of sound walls, tree-lines, sunken and raised roadways. SCAQMD, PI, 2011-2012.

Model for Air Quality forecast for Santiago, Chile. Mario Molina Center, Santiago, Chile, 2011-2012.

Measurements of thermal load on bulldozers, FS SDTDC, PI, 2010.

Impact of hydrogen injection in marine diesel engine, CARB, PI, 2010.

Improving understanding of regional and near-source air quality impacts of DG sources, CEC, Co-PI, 2009-2013.

Superfog formation: laboratory experiments and model development, USDA JFSP, PI, 2009-2012.

Success Partnership for Increasing Recruitment into Technology (SPIRIT), NSF, Co-PI, 2008-2009.

Near Source Modeling of Transportation Emissions in Built Environ. Surrounding Major Arterials, UCTC, PI, 2007-2009.

Investigation of Fluxes along Urban/Rural Transect, UC Regents, PI, 2007-2008.

Near Field Impact of Distributed Generation through Tracer Studies and Water Channel Testing, CEC, Co-PI, 2007-2009

New Tools for Estimating and managing Local/Regional Air Quality Impacts of Prescribed Burns, SERDP, Co-PI, 2008-2010.

Exploratory field study on the relationships between meteorology and air quality, EPA, Co-PI, 2006-2007.

Flume experiments: high resolution velocity measurements around multi-building arrays, LANL, PI, 2006-2007.

Laboratory Investigation of Flow and Dispersion through Urban Canopies, UC Regents, PI, 2005-2006.

Environmental Monitoring and Highway Noise, ADOT, Co-PI, 2004-2005.

Air Flow and Dispersion Over an Urban Downtown Area, ARO, Co-PI, 2003-2006.

Field Experiments

- 2019- Exposure from wood burning cooking stoves, Morelia, Mexico
- 2013: Dozer Burn Study, part 2. Sponsored by San Dimas Technology Development Center.
- 2013: Ozone Flux measurements, UCR Orchard, Sponsored by FS.
- 2012-
- 2013: Sap flux measurements, James Reserve, Sponsored by FS.
- 2011: Fire Truck Burn Study, Ione, CA, Sponsored by SERDP.
- 2011: Nocturnal Urban Boundary Layer Development, Riverside, CA. Sponsored by CEC.
- 2010: Hybrid Tugboat Emission Testing in Long Beach, CA.
- 2010: Dozer Burn Study. Sponsored by Forest Service San Dimas Technology Development Center.
- 2010: Plume rise study Palm Springs, CA. Sponsored by CEC.
- 2009-
- 2010: Emissions from prescribed burns. Sponsored by DoD SERDP.
- 2008: Transportation Emissions in Built Environments Surrounding Major Arterials in Los Angeles, Long Beach, Huntington Beach, Anaheim and Pasadena. Sponsored by UC Transportation Center
- 2008: Dispersion Study of distributed power generators in Lancaster, CA and Palm Springs, CA sponsored by the California Energy Commission
- 2007: Prescribed Burn measurements at Three Hills, Murrieta, CA.
- 2007: Urban-rural fluxes, Riverside-Moreno Valley, CA
- 2006: Riverside Energy Balance Experiment. Pune, India International USEPA air quality program.
- 2005: Wilmington Dispersion Study. California Air Resources Board sponsored program
- 2004: Environmental monitoring of the highway noise. Arizona Department of Transportation sponsored program.
- 2003: Joint Urban 2003 Experiment, Oklahoma City. US Department of Defense, Army Research Office and Defense Treat Reduction Agency sponsored program. Deployment of meteorological towers and operation of the CTI's Doppler LIDAR.
- 2002: Douglas Aerosol Experiment. Southwest Center for Environmental Research and Policy sponsored program. Organization of the experiment, coordinating team members, setting up of the instrumentation, data gathering and data managing.
- 2001: Mock Urban Settings Test Experiment. US Department of Defense sponsored program. Organization of ASU team and equipment, setting up of the instrumentation, data gathering and data managing.
- 2001: Phoenix Ozone Experiment. US Department of Energy sponsored program. Supervising ASU team (5-6 people). Took care of experiment organization and preparation, setting up of the instrumentation, data gathering and data managing.
- 2000: Vertical Transport and Mixing Experiment. US Department of Energy sponsored program. In charge of instrument preparation, field planning, data gathering, data managing and exchange of data with DOE.
- 2000: Wall Study field experiment. US Department of Education sponsored through the GAANN program. In charge of vertical profiling.

Graduated Doctoral and Master Students

- Ghasemian, Masoud, Ph.D., The Development of Numerical Models to Predict Complex Fluid Flows: The Influence of Roadside Vegetative Barriers on Near-Road Air Quality, Hot Gas ingestion into Gas Turbines Cavities and Stem Cell Cultures, 2019, Currently at ANSYS.
- Aminfar, AmirHessam, Ph.D., Application of Computer Vision to Transport Phenomena, 2019, Currently at Amgen.
- Cobian- Iñiguez, Jeanette, Ph.D., *Studies of Chaparral Wildfire Behavior: from Laboratory to Regional Scale*, 2019, Currently Assistant Professor at UC Merced.

- Redenius, Joseph, M.Sc., Design and Construction of an Open Circulating Water Channel, 2019, Currently at Clark Pacific.
- Antunez, Salvador, M.Sc. Thesis: *Ignition Capability of Mechanically Generated Sparks Landing in Fuel Beds*, 2018, Currently at Boeing.
- Dinsmore, Campbell, Ph.D. Dissertation: *Bubble Dynamics in Shear Flows: Impact on Energy Dissipation and Thrust Production*, 2015. Currently Assistant Professor at Cal Poly Pomona, Pomona, CA.
- Bartolome, Christian, Ph.D. Dissertation: *Laboratory and Numerical Modeling of the Formation of Superfog from Wildland Fires*, 2014. Currently at the California Air Resources Board, El Monte, CA.
- Maynard, Trevor, Ph.D. Dissertation: *Fire Interactions and Pulsation Theoretical and Physical Modeling*, 2013. Currently at ATF Fire Research Laboratory, Ammendale, MD.
- Pournazeri, Sam, Ph.D. Dissertation: *Plume Rise and Dispersion of Emissions from Low Level Buoyant Sources in Urban Areas*, 2012. Currently at the California Air Resources Board, Sacramento, CA.
- Pan, Hansheng, Ph.D. Dissertation: *Investigation of Flow, Turbulence, and Dispersion within Built Environments*, 2011. Currently Research Associate at Southern Methodist University, Dallas, TX.
- Li, Xiangyi, Ph.D. Dissertation: Flow, Turbulence, and Dispersion Above and Within the Roughness Sublayer: Field Observations and Laboratory Modeling, 2009. Currently at the California Air Resources Board, Enforcement Division, Heavy-Duty Diesel Enforcement Section, El Monte, CA.
- Pham, Stephanie, M.Sc. Thesis: Experimental Investigation and Numerical Simulation of Smoke, Fire, and Biological Heat Transfer, 2016. Currently at the Naval Surface Warfare Center in Corona, CA.
- Aminfar, AmirHessam, M.Sc. Thesis: Computer Vision in Fluid Mechanics, 2015. Currently Doctoral Student at UCR, Riverside, CA.
- Omodan, Sunday, M.Sc. Thesis: Fire Behavior Modeling Experiments on Surface Fire Transition to the Elevated Live Fuel, 2015. Currently teacher at Colton USD, Colton, CA.
- Gazzolo, Brandn, M.Sc. Thesis: *Near Field Modeling of the Effects of Sound Barriers on Flow and Dispersion*, 2012. Currently at the Naval Surface Warfare Center in Corona, CA.
- Zhang, Yanyan, M.Sc. Thesis: *Model of Flow through Urban-Like Obstacle Arrays and Energy Balance Parameterization*, 2009. Currently at CGG Veritas, Houston, TX.
- Chen, Shiyan, M.Sc. Thesis: *Laboratory and Field Investigation of Buoyant Plume Structure and Ground Level Concentration*, 2009. Currently at the California Air Resources Board, El Monte, CA.
- Cole, Taylor, M.Sc. Thesis: *Water Channel Design and Street Canyon Flow Modeling*, 2007. Currently at the Naval Surface Warfare Center in Corona, CA.
- Diagne, PapaMagatte, M.Sc. Thesis: *Field Investigation of the Environmental Energy Balance*, 2006. Currently at the Simpson Gumpertz & Heger Inc. in Los Angeles, CA.

Student Awards

- AmirHessam Aminfar, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, the Best Student Presentation (2016)
- Jeanette Cobian, 2018 AAAS Robert I Laurus Award American Association for the Advancement of Science Pacific Division (AAAS PD), 2018 First Place in Engineering, Technology and Applied Sciences Section American Association for the Advancement of Science Pacific Division (AAAS PD), 2016AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Honorable Mention
- Benjamin Sommerkorn, Carbon Neutrality Initiative Sustainability Fellowship (2016)
- Chirawat Sanpakit, Donald A. Strauss Foundation Fellowship (2016)

Jeanette Cobian, FIELDS/JPL Graduate Research Fellowship (2016), AAAS Robert I Laurus Award (2018), First Place in Engineering, Technology and Applied Sciences Section AAAS PD (2018), Honorable Mention Award for Excellence AAAS PD (2016)

Campbell Dinsmore:, AAAS Robert I. Larus Award (2014)

Christian Bartolome, AMS - The Best Overall Paper (2014)

Trevor Maynard: PERISHIP fellowship in disasters and hazards research (2011), AMS best oral presentation (2010, 2012)

Sam Pournazeri: AMS Best Technical Content Paper (2012)

Hansheng Pan: Academic Excellence Award by Women's Resource Center (2010)

Xiangyi Li: Outstanding Graduate Student Volunteer UCR (2007), Best Oral Presentation at 2nd UCR M.E. Graduate Research Symposium (2007), Dissertation Research Grant (2006), College Graduate Fellowship (2006)

Awards

- 2020: ASME Fellow
- 2019: Frank G. and Janice B. Delfino Agricultural Technology Research Initiative, UCR
- 2016: Global Climate Leadership Council, UC
- 2015: Outstanding Service Award, Mechanical Engineering Department, UCR
- 2009: European Meteorological Society, Kipp & Zonen Award for Boundary Layer Meteorology
- 2007: UC Regents' Fellowship
- 2005: UC Regents' Faculty Development Award
- 2003: Arizona State University recognition for an exemplary job of serving students
- 2003: Air & Waste Management Association scholarship
- 1999: "Graduate Assistantship in Area of National Need" scholarship, US Department of Education
- 1997: Best student in department
- 1995: JAT fellowship as IAESTE nominee
- 1992: Best student of generation
- 1986 Several times winning national and regional competitions organized by the National Association
- -1992: of Young Scientists and Engineers

Teaching

Undergraduate Courses

- Introduction to Mechanical Engineering (ME2)
- Fluid Mechanics (ME113)
- Energy and Environment (ME136)
- Environmental Fluid Mechanics (ME137)
- Ship Theory (ME140)
- Experimental Techniques (ME170B)

Graduate Courses

- Fundamentals of Fluid Mechanics (ME240A)
- Fundamentals of Fluid Mechanics (ME240B)
- Turbulence in Fluids (ME242)
- Apprentice Teaching (ME302)

Service

Department

- Undergraduate Advisor/Undergraduate Cmt. Chair, 2010 -2013
- ABET accreditation coordinator, 2007-2013
- Undergraduate committee, 2004-2013
- Freshman mentor, 2005-2009
- Seminar coordinator, 2006-2007
- ASME Faculty Advisor, 2007-2008, 2014- present

- Graduate Advisor/Graduate Cmt. Chair, 2013-2016

University

- Research Integrated Safety Committee (RISC), 2005-present
- RISC vice-Chair, 2007-2014
- RISC Chair, 2014-2020
- Faculty Panel Participant for Enginuity Hall, 2008, 2009
- Senate's Committee on Courses, 2009-2012
- Faculty Advisory Board of Undergraduate Research Journal, 2013-present
- Senate's Committee on Undergraduate Admissions, 2013-present
- Special Review Committee Chair, 2015-present
- Faculty Mentor for Graduate Student Mentorship Program, 2014-present

Public

- College representative of the ASME California Inland section, 2005-2014
- Vice-Chair of the ASME California Inland section, 2010- present
- Member of the American Meteorological Society Committee on Meteorological Aspects of Air Pollution (AMS CMAAP), 2008-present
- Chair of the AMS CMAAP, 2010-2014
- Organizer of 17th and 18th AMS Conference on Air Pollution
- Guest Editor of the special issue of Environmental Fluid Mechanics, 2012-2014.
- Reviewer for several journals and funding agencies
- Chair and co-Chair at several national and international meetings
- Judge and moderator at local science fairs and undergraduate conferences

Conference Organizations

17th Air Pollution Conference, as a part of 92nd AMS Annual Meeting, New Orleans, LA, 2012.

Symposium on Transport and Dispersion from Fukushima Dai Chi Nuclear Power Plant, as a part of 93rd AMS Annual Meeting, Austin, TX, 2013.

18th Air Pollution Conference, as a part of 94nd AMS Annual Meeting, Atlanta, GA, 2014.

Symposium on Advances in Fluid Mechanics and Turbulence: Analysis and Applications, as a part of annual AAAS meeting, Riverside, CA, 2014.

Symposium on Advances in Fluid Mechanics and Turbulence, as a part of annual AAAS meeting, San Diego, CA, 2016.

Symposium on Recent Advances in Turbulence Research: Experiments, Theory, and Computations, Annual AAAS meeting, Pacific Division section on Engineering, Technology, and Applied Science, Pomona, CA, 2018.

Selected Invited Talks

- Lecture at the Stellar Hydrology Days titled "Laboratory and Field Measurements of Environmental Stratified Flows", July 2006.
- Graduate seminar at the Seoul National University titled "Multi-scale Flow and Transport Processes in Urban Environments", October 2007.
- Graduate seminar at UC San Diego titled "Flow pattern through a simple urban array water channel experiments and modeling", November 2007.
- Lectures at the workshop organized by US EPA and NEERI in Mumbai, India: Emission Inventory for Air Quality Management, titled *Micrometeorological Measurements* and *Selected Field Measurement Results*, December 2007.
- Graduate seminar at UC Irvine titled "Field Measurements and Water Channel Modeling of Flow and Dispersion within Simple Arrays and in Southern Californian Cities", April 2009.
- Lecture at the Korean Institute for Science and Technology (KIST) titled "Field Measurements and Laboratory Modeling of Environmental Flows from Meso-scale to Street-scale", June 2009.
- Invited presentation at the "Favela as Urban Experience Workshop" in Rio de Janeiro, Brazil, titled "Multi-scale Flows, Transport Processes and Pollution Sources in Urban Environments", September 2011.

- Graduate seminar at UC San Diego titled "Scaling of Building Affected Plume Rise and Dispersion in Water Channels and Wind Tunnels Revisit of an Old Problem", February 2012.
- Riverside STEM Academy, A few words about fluids: boating, pollution, fire, birds..., December 2012
- Invited lecture to the Naval Warfare College, SSG, *Understanding Forces in Fluids*, Newport, RI, November 2013.
- Invited lecture at Cerritos College, *Fluid Dynamics Research Understanding Forces in Fluids*, Norwalk, CA, May 2014.
- Graduate seminar at the University of Notre Dame, "Laboratory Modeling of Environmental Flows: From Mesoscale to Streetscale", South Bend, IN, September 2014.
- Seminar at UC Santa Barbara, "Laboratory Modeling of Fire and Environmental Flows", Santa Barbara, CA, October 2014.
- Invited talk at annual TOSCA meeting, "Wind, waves and currents along the Baja peninsula in October 2014", January 2015.
- Invited lecture to Riverside Public Utilities-Water Administration and Engineering, "Fluid Mechanics: From Dispersion of Toxic Release and Fire Behavior to Hovering Hummingbirds", Riverside, CA, April 2015.
- Invited presentation to the NAVSEA, From Hummingbird Vortices to Wingsuits: Engineering Extreme Sports, Corona, CA, February, 2016.
- Keynote Speaker at Measurement Science Conference, "Dynamic Forces in Fluids", Anaheim, CA, April 2017.
- Keynote Speaker at Law Enforcement and Public Safety LEAPS-STEM Meeting, "Study of Fire: From Laboratory to Field into Computer and Game", Riverside, CA, July 2018.

Book chapters

"Springer Handbook of Experimental Fluid Mechanics", Eds. Tropea, Yarin, and Foss, Springer, Chapter 17.1, 1557pp, 2007.

"Animal Locomotion", Eds. Taylor, Graham; Triantafyllou, Michael S.; Tropea, Cameron, Springer, 350pp, 2010.

"A Project to measure and Model Pyrolisis to Improve Prediction of Prescribed Fire Behavior", Advances in Forest Fire Research, Editor: D.X. Viegas, 2018

"Surface to Crown Transition", Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires, Springer, 2018

Journal Articles*

- 55. Weise, D.R., W.M. Hao, S. Baker, M. Princevac., <u>A. Aminfar</u>, J. Palarea-Abaladejo, R. D. Ottmar, A. T. Hudak, J. Restaino, J. J. O'Brien: Comparison of fire-produced gases from wind tunnel and small field experimental burns, International Journal of Wildland Fire, https://doi.org/10.1071/WF21141, 2022
- 54. Cobian-Iñiguez, J., A. Aminfar, D.R. Weise, M. Princevac, On the Use of Semi-Empirical Flame Models for Spreading Chaparral Crown Fire, *Frontiers in Mechanical Engineering*, ID: 457696
- 53. Aminfar, A., J. Cobian-Iñiguez, M. Ghasemian, N. Rosales Espitia, D.R. Weise, M. Princevac, Using Background-Oriented Schlieren to Visualize Convection in a Propagating Wildland Fire, *Combustion Science and Technology*, DOI: 10.1080/00102202.2019.1635122, 2019.
- 52. <u>Bartolome, C., M. Princevac, D.R. Weise, S. Mahalingam, M. Ghasemian, A. Venkatram., H. Vu, G. Aguilar, Laboratory and numerical modeling of the formation of superfog from wildland fires, *Fire Safety Journal*, 106, 94–104, 2019.</u>
- 51. <u>Aminfar, A</u>, N. Davoodzadeh, G. Aguilar, M. Princevac, Application of optical flow algorithms to laser speckle imaging, *Microvascular Research* 122 52–59, 2019.
- 50. <u>Ghasemian M.</u>, M. Princevac, YW Kim, HD Hamm, Numerical modeling of hot gas ingestion into the rotor-stator disk cavities of a subscale 1.5-stage axial gas turbine, *International Journal of Heat and Mass Transfer* 130 1016–1031, 2019.

^{*} underlined authors are students advised by M. Princevac

- 49. Peck, R.A., Bahena, E., Jahan, R., Aguilar, G., Tsutsui, H., Princevac, M., Wilhelmus, M.M., Rao, M.P. Meso-Scale Particle Image Velocimetry Studies of Neurovascular Flows In Vitro. *J. Vis. Exp.* (142), e58902, doi:10.3791/58902, 2018.
- 48. Ruiz-Garcia V.M, R.D. Edwards, M. Ghasemian, V.M. Berrueta, M. Princevac, J.C. Vazquez, M. Johnson, O.R. Masera, Fugitive Emissions and Health Implications of Plancha-Type Stoves, *Environmental Science and Technology*, DOI: http://dx.doi.org/10.1021/acs.est.8b01704, 2018.
- 47. Cobian-Iñiguez, J., Aminfar, A., Chong, J., Burke, G., Zuniga, A., Weise, D.R., M. Princevac, Wind Tunnel Experiments to Study Chaparral Crown Fires., *J. Vis. Exp.* (129), e56591, doi:10.3791/56591, 2017.
- 46. <u>Ghasemian, M.</u>, S. Amini, M.Princevac, The influence of roadside solid and vegetation barriers on near-road air quality, *Atmospheric Environment* 170 (2017) 108-117, 2017.
- 45. Edwards, R, M. Princevac, R. Weltman, M. Ghasemian, N.K. Arora, and T. Bond, Modeling emission rates and exposures from outdoor cooking, *Atmospheric Environment* 164 (2017) 50-60, 2017.
- 44. <u>Dinsmore, C., A. Aminfar</u>, and M. Princevac, Dissipative Effects of Bubbles and Particles in Shear Flows, *Journal of Fluids Engineering*, DOI: 10.1115/1.4035946, 139, 061302-1-12, 2017.
- 43 Maynard, T., M. Princevac, D.R. Weise, A Study of the Flow Field Surrounding Interacting Line Fires, *Journal of Combustion*, 6927482, 12, 2016.
- 42. <u>Pournazeri, S.</u> and M. Princevac, Sound Wall Barriers: Near Roadway Dispersion under Neutrally Stratified Boundary Layer, *International Journal of Transportation Research Part* D, 41, 386-400, 2015.
- 41. Di Sabatino, S, M. Princevac, Recent advancements in urban flow research Preface, *Environ. Fluid Mech.*, 15(2), 231-233, 2015.
- 40. <u>Sanpakit, C., S. Omodan,</u> D. Weise, M. Princevac, Laboratory Fire Behavior Measurements of Chaparral Crown Fire, *UCR UGRJ*, 9, 123-129, 2015.
- 39. Pan, H., S. Pournazeri, M. Princevac, W. Miller, S. Mahalingam, M. Khan, V. Jayaram, W. Welch, Effect of Hydrogen Addition on Criteria and Greenhouse Gas Emissions for Marine Diesel Engine, *International Journal of Hydrogen Energy*, 39:11336-11345, 2014.
- 38. Monti P., H.J.S. Fernando, and M., Princevac, Waves and turbulence in katabatic winds, *Environ. Fluid Mech.*, 14:431–45036, 2014.
- 37. Long A., J. Weiss, M. Princevac and <u>C. Bartolome</u>, Superfog: State of the Science, *Southern Fire Exchange Fact Sheets*, 2, 2014.
- 36. <u>Pournazeri S.</u>, Schulte N., Tan S., Princevac M., Venkatram A., Dispersion of buoyant emissions from low level sources in urban areas: water channel modelling, *Int. J. Environment and Pollution*, Vol. 52, Nos. 3/4, 119-140, 2013.
- 35. <u>Pournazeri, S., Gazzolo, B., Princevac, M., Development of an Air Dispersion Model to Study Near-Road Exposure.</u> Environmental Management. July 2013.
- 34. <u>Pournazeri, S.</u>, P. Segre, M. Princevac, D. Altshuler, Hummingbirds generate bilateral vortex loops during hovering: evidence from flow visualization, *Experiments in Fluids*, 54:1439, 2012.
- 33. Pan, H., C. Bartolome, E. Gutierrez, M. Princevac, R. Edwards, M.G. Boarnet, D. Houston, Investigation of Roadside Fine Particulate Matter Concentration Surrounding Major Arterials in Five Southern Californian Cities, *Journal of Air and Waste Management Association*, Vol. 63: 4 p.482-498, 2013.
- 32. <u>Bartolome, C., H. Gonzalez</u>, M. Princevac, A. Venkatram, D.R. Weise, G. Achtemeier, G. Aguilar, S. Mahalingam, Numerical and Physical Investigation of the Properties of Superfog, Bulletin of the American Meteorological Society, 93(6), 780-781, 2012.
- 31. <u>Pournazeri, S.</u>, Venkatram, A., Princevac, M., Tan, S.. Schulte, N., Estimating the height of the nocturnal urban boundary layer for dispersion applications, *Atmospheric Environment*, 54, 611-623, 2012.
- 30. <u>Pournazeri, S., M. Princevac, A. Venkatram, Rise of Buoyant Emissions from Low-Level Sources in the Presence of Upstream and Downstream Obstacles, *Boundary Layer Meteorology*, 144, 287-308, 2012.</u>

- 29. <u>Pournazeri, S., M. Princevac, and A. Venkatram, Scaling of Urban Plume Rise and Dispersion in Water Channels and Wind Tunnels Revisit of an Old Problem, Journal of Wind Engineering and Industrial Aerodynamics, 103, 16-30, 2012.</u>
- 28. <u>Maynard, T.</u> and M. Princevac, The application of a simple free convection model to the pool fire pulsation problem, *Combustion Science and Technology*, 184(4), 505-516, 2012.
- 27. Boarnet, M., D. Houston, R. Edwards, M. Princevac, G. Ferguson, <u>H. Pan, C. Bartolome</u>, Fine particulate concentrations on sidewalks in five Southern California cities, *Atmospheric Environment*, 45, 4025-4033, 2011.
- 26. Zajic D., H.J.S. Fernando, R. Calhoun, M. Princevac, M.J. Brown, E.R. Pardyjak, "Flow and Turbulence in an Urban Canyon", *Journal of Applied Meteorology*, 50, 1, 203-223, 2011.
- 25. Hosseini S., Q. Li, D. Cocker, D. Weise, A. Miller, M. Shrivastava, J. W. Miller, S. Mahalingam, M. Princevac, and H. Jung, *Particle size distributions from laboratory-scale biomass fires using fast response instruments*, Atmos. Chem. Phys., 10, 8065-8076, 2010.
- 24. Princevac, M., J. Bühler, A. Schleiss, Alternative depth-averaged models for gravity currents and free shear flows, *Environmental Fluid Mechanics*, 10, 369-386, 2010.
- Qian W., M. Princevac, A. Venkatram, 'Using Temperature Fluctuation Measurements to Estimate Meteorological Inputs for Modeling Dispersion during Convective Conditions in Urban Areas, *Boundary Layer Meteorology*, 135, 269-289, 2010.
- 22. Lozano J., W. Tachajapong, D. Weise, S. Mahalingam, M. Princevac, Fluid Dynamic Structures in a Fire Environment Observed in Laboratory Scale Experiments, April, *Combustion Science and Technology*, 35, 2009.
- 21. Princevac, M., J.-J. Baik, X. Li, S.-B. Park and H. Pan, Lateral channeling within rectangular arrays of cubical obstacles, *Journal of Wind Engineering and Industrial Aerodynamic*, 98, 377-385, 2010.
- 20. Noroozi Z., H. Kido, M. Micic, <u>H. Pan, C. Bartolome</u>, M. Princevac, J. Zoval, and M. Madou: Reciprocating flow-based centrifugal microfluidic mixer, *Review of Scientific Instruments*, 80, 075102, 2009.
- 19. Altshuler D., M. Princevac, H. Pan, and J. Lozano, Wake patterns of the wings and tail of hovering hummingbirds, *Experiments in Fluids*, 46, 835-846, 2009.
- 18. Princevac, M, J. Buhler and A. Schleiss: Mass-based depth and velocity scales for gravity currents and related flows, *Environmental Fluid Mechanics*, 9, 369-387, 2009.
- 17. Lee, S., M. Princevac, S. Mitsutomi, and J. Cassmassi: MM5 Simulations for Air Quality Modeling: An Application to a Coastal Area with Complex Terrain, *Atmospheric Environment*, 43, 447-457, 2009.
- 16. <u>Li X.</u>, <u>N. Zimmerman</u>, M. Princevac: Local Imbalance of Turbulent Kinetic Energy in the Surface Layer, *Boundary-Layer Meteorology*, 129:115–136, 2008.
- 15. Venkatram, A. and M. Princevac, Using measurements in urban areas to estimate turbulent velocities for modeling dispersion, *Atmos. Environ.*, 42(16), 3833-3841, 2008.
- 14. Princevac, M. and H.J.S. Fernando: Morning breakup of cold pools in complex terrain, *Journal of Fluid Mechanics*, 616, 99–109, 2008.
- 13. Princevac, M., J.C.R. Hunt, and H.J.S. Fernando, "Quasi-Steady Katabatic Winds on Long Slopes and In Wide Valleys: Hydraulic Theory and Observations", *Journal of the Atmospheric Sciences*, 65, 627-643, 2008.
- 12. Princevac, M. and A. Venkatram, "Estimating Micrometeorological Inputs for Modeling Dispersion in Urban Areas during Stable Conditions", *Atmospheric Environment*, 41(26), 5345-5356, 2007.
- 11. Princevac, M. and H.J.S. Fernando, "A Criterion for the Generation of Anabatic Flow", *Physics of Fluids*, 19(10), 105102, 2007.
- Calhoun R, Heap R, Princevac M, Newsom R, Fernando H, and Ligon D: Virtual towers using coherent Doppler lidar during the Joint Urban 2003 dispersion experiment, *Journal Of Applied Meteorology And Climatology* 45(8): 1116-1126, 2006.

- 9. Lee, S.M., W. Giori, M. Princevac, and H.J.S. Fernando, "Implementation of a Stable PBL Turbulence Parameterization for the Mesoscale Model MM5: Nocturnal Flow in Complex Terrain", *Boundary Layer Meteo.*, 119(1): 109-134. APR 2006.
- 8. Newsom R.K., D. Ligon, R. Calhoun, R. Heap, E. Cregan, and M. Princevac, "Retrieval of Microscale Wind and Temperature Fields from Single- and Dual-Doppler Lidar Data", *Journal of Applied Meteorology*, 44(9), pages 1324-1345, 2005.
- 7. Princevac, M., H.J.S. Fernando, and C.D. Whiteman, "Turbulent entrainment into natural gravity-driven flows", *Journal of Fluid Mechanics*, 533, 259-268, 2005.
- Fernando H.J.S. and M. Princevac, "Internal tides and the continental slope", American Scientist, 92(5), 397, 2004.
- 5. Hunt, J.C.R., H.J.S. Fernando, and M. Princevac, "Unsteady Thermally Driven Flows on Gentle Slopes", *Journal of the Atmospheric Sciences*, Vol. 60, No. 17, pp. 2169–2182, 2003.
- 4. Lee, S.M., H.J.S. Fernando, M. Princevac, M. Sinesi, D. Zajic, and J. Anderson, "Transport and Diffusion of Ozone in the Nocturnal and Morning PBL of the Phoenix Valley", *Environmental Fluid Dynamics*, Vol 3 (4), 331-362, 2003.
- 3. Monti, P., H.J.S. Fernando, M. Princevac, W.C. Chan, T.A. Kowalewski and E. R. Pardyjak, "Observations of Flow and Turbulence in the Nocturnal Boundary Layer Over a Slope", *Journal of the Atmospheric Sciences*, Vol 59 (17), 2513-2534, 2002.
- Fernando, H.J.S., S.M. Lee, J. Anderson, M. Princevac, E. Pardyjak, and S. Grossman-Clarke, "Urban Fluid Mechanics: Air Circulation and Contaminant Dispersion in Cities", *Environmental Fluid Dynamics*, Vol 1, 107-164, 2000.
- 1. Radojcic, D., M. Princevac and T. Rodic, "Resistance and Trim Predictions for the SKLAD Semidisplacement Hull Series", *Oceanic Engineering International*, Vol. 3 (1), 34-50, 1999

Journal Articles in Preparation

<u>Ghasemian M.</u>, C. Layton, H. Tsutsui, M. Princevac, "Computational Fluid Dynamic Simulation of Stem Cell Bioreactor", under preparation.

<u>Ghasemian M.</u>, M. Princevac, T. Bond, R. Edwards, "Air quality assessment of idealized built environment with various morphology parameters", under preparation.

<u>Aminfar.A, Dinsmore C.,</u> and Princevac. M, Development of computer vision algorithms for studying bubble evolution in turbulent jets to be submitted to Experimental Thermal and Fluid Science.

Aminfar, A., Cobian-Iñiguez, J., Weise, D. R ,Princevac. M. Application of background oriented schlieren in flow visualization around Fire jets to be submitted combustion and flames

Conferences (proceedings/presentations/abstracts)[†]

- 191. <u>Aminfar A.</u>, N. Davoodzadeh, G. Aguilar, M. Princevac, Application of Optical Flow Algorithms to Visualize Pulsatile Blood Flow, 2018 UC system wide Bioengineering conference Angles, CA, April 2018.
- 190. <u>Ghasemian M.</u>, H. Tsutsui, M. Princevac, "Large Eddy Simulation of Fluid Flow in the Stem Cell Stirred Bioreactor", Recent Advances in Turbulence Research: Experiments, Theory, and Computations, 99th AAAS Annual meeting, Pomona, California, June 2018.
- 189. <u>Ghasemian M.</u>, H. Tsutsui, M. Princevac, "Hydrodynamic characterization within a spinner flask for stem cell culture application", 12th SoCal Symposium on Flow Physics, Los Angeles, California, April 2018.
- 188. Aminfar A., N. Davoodzadeh, G. Aguilar, D. R. Weise and M. Princevac, Application of Computer Vision in Multi-Scale Flow Visualization Using Granular Light Patterns, Recent Advances in Turbulence Research: Experiments, Theory, and Computations, as a part of 99th Annual AAAS meeting, Pomona, CA, June 2018

[†] underlined authors are students advised by M. Princevac

- 187. Aminfar A., D. R. Weise and M. Princevac, Application of Background Oriented Schlieren on Visualization and Measurements of Convective Mass Flux Around Fire, Fire Continuum conference, Missoula, MT, May 2018.
- 186. <u>Aminfar A., N. Rosales Espitia</u>, D. R. Weise and M. Princevac, Visualization and Measurements of Convective Mass Flux Around Fire Using Background Oriented Schlieren, 12th Fire and Forest Meteorology Symposium, Boise, ID, May 2018.
- 185. <u>Aminfar A.</u>, N. Davoodzadeh, G. Aguilar, M. Princevac, Visualization and Measurement of Blood Flow Using Laser Speckle Velocimetry, 12th SoCal Symposium on Flow Physics, Los Angeles, CA, April 2018.
- 184. Rosales Espitia N., A. Aminfar, M. Princevac, Mechanical Engineering Image Processing on Flow Visualization of Fire, UCR undergraduate symposium May 2018.
- 183. <u>Cobian-Iñiguez J.</u>, <u>Aminfar, A.</u>, Princevac, M. A Multiscale Analysis of Widlfires in the Southern Californian Chaparral. 2017 MUREP Institutional Research Opportunity (MIRO) Principal Investigator's Meeting Poster Session. NASA Goddard Space Flight Center, Greenbelt, MD. May 2017.
- 182. <u>Cobian-Iñiguez J.</u>, M. Princevac, Analysis of Chaparral Crown Fire Across Multiple Time and Length Scales. Mechanical Engineering Graduate Student Research Symposium. Riverside, CA, May 13, 2017.
- 181. <u>Cobian-Iñiguez, J.</u>, Princevac M.. A Multiscale Analysis of Wildland Fire in the Southern Californian Chaparral. Southern California Flow Physics Symposium (So Cal Fluids X), San Diego, CA. April 22, 2017.
- 180. <u>Cobian-Iñiguez, J.; Aminfar, A. Gonzalez A., Herrera, I.; Chong, J.; Burke, G.; Weise, D., Princevac M., Transition and Flame Spread Characteristics in Chaparral Fires. American Association for the Advancement of Science (AAAS) Pacific Division Annual Meeting. Pomona, CA. May, 2018.</u>
- 179. Gonzalez, A., Herrera, I., Cobian-Iñiguez, J., Chong, J., Burke, G., Weise, D., Princevac, Marko. Southern California Chaparral Crown Fire Transition Behavior. University of California, Riverside Undergraduate Research, Scholarship, and Creative Activity Symposium. Riverside, CA. May 2018.
- 178. Choi, M., Cobian-Iñiguez, J., De Leo-Winkler, Arp, Trevor, Princevac, Marko. Effects of Weather Data on Fuel Moisture Modeling for a Fire Behavior Application. University of California, Riverside Undergraduate Research, Scholarship, and Creative Activity Symposium. Riverside, CA. May 2018.
- 177. Cobian-Iñiguez, J.; Aminfar, A.; Gonzalez, A., Herrera, I., Chong, J., Burke G., Weise D., Princevac M., On the effects of wind speed and surface-crown distance on chaparral crown fire behavior. Southern California Flow Physics Symposium (So Cal Fluids XII), University of Southern California, Los Angeles, CA. April 14, 2018.
- 176. <u>Cobian-Iñiguez J.</u>, <u>A. Aminfar</u>, M. Princevac. Towards a Data Driven Model of Fire, Intensity for Chaparral Crown Fires. Western States Section of the Combustion Institute, Winter Technical Meeting, Bend, OR, 2018.
- 175. <u>Cobian-Iñiguez J.</u>, M. De Leo-Winkler, T. Arp, M. Princevac. GridFire: An Online Interactive Tool for Fire Science Education. Western States Section of the Combustion Institute, Winter Technical Meeting, Bend, OR, 2018
- 174. Aminfar, A., Cobian-Iñiguez, J., Pham, S., Chong, J., Burke, G., Weise, D. and M. Princevac, Application of computer vision in studying fire plume behavior of tilting flames, 69th Annual Meeting of the APS Division of Fluid Dynamics, Volume 61, November 20–22, 2016; Portland, Oregon
- 173. Antunez S., J. Cobian- Iñiguez, AH. Aminfar, A. Badani, J. Josey, N. Yim, J. Chong, G. Burke, DR. Weise, M. Princevac, Flaming Ignition Behavior of Hot Sparks Landing In Fuel Beds, 8th Annual MEGSA Research Symposium, Riverside, CA, May 2017.
- 172. <u>Aminfar AH</u> and M. Princevac, Computerized flow visualization using background oriented schlieren, MEGSA Symposium, Riverside, CA, May 2017.
- 171. <u>Ghasemian M.</u>, M. Princevac, "Numerical Prediction of Hot Gas Ingestion into Upstream and Downstream Rotor-Stator Disk Cavities in an Axial Gas Turbine", 11th SoCal Symposium on Flow Physics, San Diego, California, April 2017.

- 170. Aminfar AH, N.R. Espitia and M. Princevac, Measurements of Turbulent Characteristics of Thermally Driven Flow Using Background Oriented Schlieren., 11th SoCal Symposium on Flow Physics, San Diego, CA, April 2017.
- 169. Espitia NR, AH Aminfar, J. Cobian, S. Pham, M. Princevac, Image Processing for Flow Visualization of Flame Tilting, SCCUR, Riverside, CA, November 2016.
- 168. Cobian J. -Iñiguez, A. Zuniga, AH. Amnifar, J. Chong, G. Burke, DR. Weise, M. Princevac, Laboratory Experiments to Study Transition and Spread in Chaparral Crown Fires, International Smoke Symposium (ISS2), Long Beach, CA, November 2016.
- 167. <u>Antunez S., J. Cobian-Iñiguez, B. Zhang</u>, J. Chong, G. Burke, DR. Weise, M. Princevac, Numerical Modeling of Studies on Surface to Crown Fire Transition in Chaparral, Symposium on Advances in Fluid Mechanics and Turbulence, 97th AAAS Annual Meeting, San Diego, CA, June, 2016.
- 166. <u>Ghasemian M.</u>, M. Princevac, "Computational Fluid Dynamic Simulation of Air Pollution Dispersion from Ground Sources in Build Areas", 10th SoCal Symposium on Flow Physics, Irvine, California, April 2016.
- 165. <u>Aminfar AH</u>, <u>C. Disnmore</u>, M. Princevac, Visualization of Bubble Evolution in a Turbulent Jet, 17th International symposium of flow visualization, Gatlinburg ,TN, June 2016.
- 164. Pham S., J.Cobian-Iniguez, B.Sommerkorn, J. Chong, G. Burke, M. Kacarab, D.Weise, D.Cocker, M. Princevac, Interception of Smoke by a Forest Canopy, So Cal Fluids, University of California, Irvine, Ca, April 2016
- 163. Sommerkorn B., J. Eggan, R. Hernandez, M. Princevac, The Water Energy Nexus, California Higher Education Sustainability Conference (CHESC), Fullerton, CA, June 2016.
- 162. Cobian-Iñiguez J., A. Zuniga, AH. Amnifar, J. Chong, G. Burke, DR. Weise, M. Princevac, Studies on Surface to Crown Transition and Spread in Chaparral Crown Fires, Pacific Division of the American Association for the Advancement of Science (AAAS), San Diego, CA, June 14 - 17, 2016.
- 161. <u>Ghasemian M.</u>, M. Princevac, R. D. Edwards, Eulerian and Lagrangian Modeling of Air Pollution Dispersion from Ground Sources, Symposium on Advances in Fluid Mechanics and Turbulence, 97th AAAS Annual meeting, San Diego, California, June, 2016.
- 160. Cobian-Iñiguez J., A. Zuniga, AH. Amnifar, C. Sanpakit, J. Chong, G. Burke, DR. Weise, M. Princevac, Surface to Crown Transition and Spread Studies for Chaparral Crown Fire, Southern California Flow Physics Symposium (So Cal Fluids X) Irvine, CA, April 9, 2016.
- 159. Pham S., J.Cobian-Iniguez, B.Sommerkorn, J. Chong, G. Burke, M. Kacarab, D.Weise, D.Cocker, M.Princevac, Effectiveness of Smoke Filter by a Forest Canopy, AAAS, University of San Diego, Ca, June 2016
- 158. <u>Aminfar AH</u>, <u>C. Disnmore</u>, M. Princevac, Application of Computer Vision in Studying Bubble Deformation in Turbulent Jets, Symposium on Advances in Fluid Mechanics and Turbulence, as a part of 97th Annual AAAS meeting, San Diego, CA, June 2016.
- 157. Sommerkorn B., J. Eggan, R. Hernandez, M. Princevac, Lifting the Curtain: The Water Energy Relationship at The University of California Riverside, American Association for the Advancement of Science (AAAS), San Diego, CA, June 2016.
- 156. <u>Sanpakit C., T. Lam, B. Sommerkorn, M. Princevac, Effects of Air Lubrication on Hydrokinetic Turbines, 10th Annual Undergraduate Research, Scholarship, and Creative Activity Symposium, Riverside, CA, April 2016.</u>
- 155. <u>Ghasemian M.</u>, M. Princevac, Computational Fluid Dynamic Simulation of Air Pollution Dispersion from Ground Sources in Build Areas, 10th SoCal Symposium on Flow Physics, Irvine, California, April, 2016.
- 154. <u>Aminfar AH</u>, <u>Campbell Disnmore</u>, Marko Princevac, Study of Bubble Deformation in Turbulent Jet, 10th SoCal Symposium on Flow Physics, Irvine ,CA, April 2016.
- 153. <u>Sanpakit C.</u>, S. Tripp, S. Dunn, D. Hastings, D. Decker, J. Story, R. Hansen, K. Higbie, M. Princevac, Leveraging Unmanned Aerial Systems to Expand Maritime Domain Awareness in Arctic Regions, Southern California Conference for Undergraduate Research (SCCUR), Claremont, CA, November 2015.

- 152. <u>Cobian-Iñiguez J.</u>, <u>C. Sanpakit</u>, J. Chong, G. Burke, <u>G. Dupont</u>, DR. Weise, M Princevac, Laboratory Experiments to Study Surface to Crown Fire Transition in Chaparral, Western States Section of the Combustion Institute (WSSCI), Provo, UT, October 2015.
- 151. Zuniga A., J. Cobian-Iñiguez, AH Aminfar, C. Sanpakit, J. Chong, G. Burke, G. Dupont, DR Weise, M. Princevac, Laboratory Modeling of Chaparral Crown Fires, SHPE National Conference, Baltimore, MD, November 2015.
- 150. <u>Bradshaw R.</u>, <u>R-D. Delgadillo</u>, <u>L. Hakimi</u>, <u>Y. Jiang</u>, <u>J. Malagon</u>, <u>S. Omodan</u>, <u>C. Sanpakit</u>, <u>R. Torrento</u>, <u>C. Bartolome</u>, and M. Princevac, Laboratory Fire Behavior Measurements of Chaparral Crown Fire Initial Laboratory and Model Results, MEGSA Symposium, Riverside, CA, May 2015.
- 149. <u>Galeana D.</u>, M. Princevac, H-K. Moon, and G. Potis, Investigation of Swirling Cooling Flow Within a Turbine Blade Leading Edge, So Cal Fluids IX, San Diego, CA, April 2015.
- 148. Dinsmore C., A. Aminfar, M. Princevac, B. Basnet, J. Hauser, W. Tse, M. Allen, G. Rage, R. Copca, P. Lou, J. Malay, C. Morales, R. Escajeda, L. Hakimi, W. Bravo, The Subtle Effects of Air Lubrication: Micro-Bubbles and Enhanced Control of Ship Dynamics, AAAS Annual Conference, San Jose, CA, February 2015 (under the auspices of the AAAS Robert I. Larus Award)
- 147. Sanpakit C., R. Bradshaw, R-D. Delgadillo, L. Hakimi, J. Malagon, S. Omodan, R. Torrento, C. Bartolome, and M. Princevac, Laboratory Fire Behavior Measurements of Chaparral Crown Fire Experimental Setup and Ignition Experiments, SCCUR, Fullerton, CA, November 2014.
- 146. <u>Sanpakit C.</u> and M. Princevac, Laboratory Fire Behavior Measurements of Chaparral Crown Fire Comparison Between Laboratory Results and Numerical Model, UCR's Ninth Annual Symposium for Undergraduate Research, Scholarship, and Creative Activity, Riverside, CA, April 2015.
- 145. <u>Basnet B., J. Malay, M. Allen, M. Princevac, and C. Dinsmore, Effect of Air Lubrication Bubbles on Propeller Performance, 22nd SCCUR, Fullerton, CA, November 2014</u>
- 144. Escajeda R., L. Hakimi, G. Rage, M. Princevac, and C. Dinsmore, Visualization of Turbulent Flow Using Air Bubbles in Water, 22nd SCCUR, Fullerton, CA, November 2014
- 143. <u>Tse W., J. Hauser</u>, M. Princevac, and <u>C. Dinsmore</u>, Segmented design for drag force measurements, 22nd SCCUR, Fullerton, CA, November 2014
- 142. <u>Dinsmore C., M. Princevac, M. Allen, A. Aminfar, B. Basnet, R. Copca, R. Escajeda, W. Gutierrez, L. Hakimi, J. Hauser, P. Lou, J. Malay, C. Morales, G. Rage, and W. Tse, Practical and Theoretical Considerations of Two Phase Shear Flows, 38th Annual GEM Board Meeting and Conference, San Diego, CA, August 2014</u>
- 141. <u>C. Dinsmore</u>, M. Princevac, <u>R. Copca</u>, <u>J. Hauser</u>, <u>W. Tse</u>, <u>P. Lou</u>, <u>J. Malay</u>, and <u>C. Morales</u>, Subtle Effects of Air Lubrication, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Riverside, CA, June 2014.
- 140. <u>C. Bartolome</u>, M. Princevac, A. Venkatram, D. Weise, G. Achtemeier, and S. Mahalingam, New Superfog Screening Tool Development and Validations through Laboratory Experiments, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Riverside, CA, June 2014.
- 139. <u>T. Maynard</u>, M. Princevac, D. Weise, A Study of the Flow Field Surrounding Interacting Line Fires, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Riverside, CA, June 2014.
- 138. S. Omodan, C. Bartolome, R.-D. Delgadillo, J. Chong, G. Burke, M. Princevac, and D. Weise, Experiments on Surface Fire Transition to the Elevated Live Fuels, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Riverside, CA, June 2014.
- 137. M. Princevac, <u>S. Pournazeri</u>, <u>B. Gazzolo</u>, Near Road Impact of Sound Walls on Air Quality Mitigation, AAAS Symposium on Advances in Fluid Mechanics and Turbulence, Riverside, CA, June 2014.
- 136. <u>C. Bartolome, S. Omodan, R.-D. Delgadillo</u>, J. Chong, G. Burke, M. Princevac, and D. Weise, Laboratory Fire Behavior Measurements of Chaparral Crown Fires, 8th Southern California Flow Physics Symposium, Los Angeles, CA, April 2014.

- 135. <u>D. Galeana</u>, M. Princevac, H.-K. Moon, Experimental Modeling of a swirling cooling flow within a turbine blade leading edge, 8th Southern California Flow Physics Symposium, Los Angeles, CA, April 2014.
- 134. <u>C. Dinsmore</u>, M. Princevac, <u>R. Copca</u>, <u>J. Hauser</u>, <u>P. Lou</u>, <u>J. Malay</u>, <u>C. Morales</u>, <u>W. Tse</u>, Bubbles in Shear Flow Air Lubrication, 8th Southern California Flow Physics Symposium, Los Angeles, CA, April 2014.
- 133. <u>J. Freire, W. Tse, J. Hauser, M. Princevac, and C. Dinsmore, The Development of an Economical Fixture for Quantifying Viscous Drag Forces in an Aqueous Environment, 21st SCCUR, Whittier, CA, November 2013</u>
- 132. R. Copca, P. Lou, C. Morales, J. Malay, M. Princevac, and C. Dinsmore, The Impact of Air Lubrication on a Boat's Propeller, 21st SCCUR, Whittier, CA, November 2013
- •131 W. Tse, M. Shinn, J. Freire, M. Princevac, and C. Dinsmore, The Design and Fabrication of a Mechanical Force Balance, 7th Annual Symposium and Creative Activity for Undergraduate Research, Scholarship and Creative Activity, Riverside, CA, May 2013
- 130 R. Delgadillo, T. Nash, C. Dinsmore, M. Princevac, Designing a Conductivity Measurement Probe to Experimentally Observe Pollution Dispersion Through a Fluid, 7th Annual Symposium and Creative Activity for Undergraduate Research, Scholarship and Creative Activity, Riverside, CA, May 2013
- 129. D. Weise, W, Miller, D. Cocker, H. Jung, S. Hosseini, M. Princevac, R. Yokelson, I. Burling, S. Akagi, S. Urbanski, W. Hao, Recent emissions research in southwestern shrub and grassland fuels, Proceedings of the International Smoke Symposium, Published by the International Association of Wildland Fire, Missoula, Montana, USA, October 21-24, 2013, Hyattsville, Maryland, USA.
- 128. <u>C. Bartolome</u>, Princevac, M., Weise, D., Venkatram, A., Achtemeier, G., Development of a New Superfog Screening Tool through Theoretical, Experimental and Numerical Investigation . International Smoke Symposium 2013. Adelphi, MD. October 2013.
- 127. D. Weise, Miller, W., Yokelson, R., Urbanski, S., Cocker, D., Jung, H., Princevac, M., Burling, I., Akagi, S., Hosseini, E.. Measuring Smoke Emissions on DOD Installations: 1. Southwestern Shrub and Grassland Fuels. 94th Annual AMS meeting. Atlanta, GA. February 2014.
- 126. H. Kondo, Iwasaki, T., Yamada, T., Princevac, M., A Summary of Fukushima Special Symposium at the AMS 2013 Annual Meeting and Scientific Communication Efforts with the Public in Japan. 94th Annual AMS Meeting. Atlanta, GA. February 2014.
- 125. S. Pournazeri, Gazzolo, B., Princevac, M., Sound Walls and Air Quality Mitigation. Atlanta, GA. February 2014.
- 124. <u>C. Bartolome</u>, Princevac, M., Weise, D., Venkatram, A., Achtemeier, G. . Development of a New Superfog Screening Tool through Theoretical, Experimental and Numerical Investigation. 94th Annual AMS Meeting. Atlanta, GA. February 2014.
- 123. K. Alstad, <u>Bartolome, C.</u>, Princevac, M., Bytnerowicz, A., Comparison of two high frequency ozone instruments for eddy-covariance flux of an urban orchard: UV versus . 94 Annual AMS Meeting. Atlanta, GA. February 2013.
- 122. <u>H. Pan</u>, M. Princevac, A. Venkatram, S. Lee, <u>C. Bartolome</u>, R. Edwards "Investigation of the Variation in Meteorological Variables and Fine Particulate Concentrations At Street Level in Urban Areas" AMS 92nd Annual Meeting, 1, New Orleans, LA, January 2012
- 121. <u>C. Bartolome</u>, M. Princevac, A. Venkatram, S. Mahalingam, G. Achtemeier, D. Weise, H. Vu, G. Aguilar "Numerical and Physical Investigation of the Properties of Superfog" AMS 92nd Annual Meeting, 1, New Orleans, LA, January 2012
- 120. <u>V. Lu, K. Tsui, C. Bartolome, M. Princevac, A. Venkatram, S. Mahalingam, G. Achtemeier, D. Weise</u> "Laboratory Measurements and Characterization of Smoldering Smoke From Pine Needle Fuel Beds" AMS 92nd Annual Meeting, 1, New Orleans, LA, January 2012
- 119. <u>S. Pournazeri, M. Princevac</u>, A. Venkatram "A New Method on Scaling the Urban Plume Rise and Dispersion in Water Channels" AMS 92nd Annual Meeting, 1, New Orleans, LA, January 2012

- 118. <u>B. Gazzolo, S. Pournazeri, M. Princevac "The Assessment of Sound Barriers on near Roadway Air Quality" AMS 92nd Annual Meeting, 1, New Orleans, LA, January 2012</u>
- 117. Z. Wang, C. Chien, G. Tonnesen, W. Miller, M. Princevac, <u>H. Gonzalez</u>, <u>R. Moore</u> "Meteorological and Air Quality Modeling of a 2009 Prescribe Burn Event" AMS Ninth Symposium on Fire and Forest Meteorology, 1, Palm Springs, CA, October 2011.
- 116. <u>S. Pournazeri</u>, Q. Jing, M. Princevac, A. Venkatram, "Investigating Dispersion of Buoyant Emissions from Low level Sources in Urban Areas: Water Channel Modeling," *Annual Meeting of the American Meteorological Society*, Seattle, WA, January 2011, 7, 2011.
- 115. <u>C. Bartolome</u>, M. Princevac, A. Venkatram, S. Mahalingam, D. Weise, G. Achtemeier, H. Vu, G. Aguilar, "Laboratory Measurements and Sensitivity Modeling of Droplet Characteristics and Implications for Superfog," *ILASS-Americas 23rd Annual Conference on Liquid Atomization and Spray Systems*, Ventura, CA, May 2011, 10, 2011.
- 114. P. Monti, H. Fernando, M. Princevac, "On Quantifying Waves and Turbulence Contributions in Katabatic Flows," May, *Seventh International Symposium on Stratified Flows*, Roma, Italy, August 2011, 5, 2011
- 113. M. Boarnet, R. Edwards, G. Ferguson, M. Princevac, J. Wu, R. Lejano, "Planning To Reduce Fine Particulate Exposure Near Arterial Streets," February, *Association of Collegiate Schools of Planning Annual Conference*, Crystal City, Virginia, October 2009, 1, 2009.
- 112. D. Weise, W. Miller, D. Cocker, H. Jung, R. Yokelson, W. Hao, S. Urbanski, M. Princevac, S. Mahalingam, I. Burling, "Development of new fuels and emissions data for maritime chaparral and Madrean oak woodland fuel types", 3rd Fire Behavior and Fuels Conference, October 25-29, 2010, Spokane, Washington, USA.
- 111. M. Princevac, <u>S. Pournazeri</u>, A. Venkatram, "Fiber Optic Assisted LIF Measurements in a Water Channel", 15th Int. Symp on Applications of Laser Techniques to Fluid Mechanics, Lisbon, Portugal, 05-08 July, 2010.
- 110. J. Bühler, M. Princevac, A.J. Schleiss, "Entrainment by katabatic winds", 6th International Symposium on Environmental Hydraulics (ISEH), 23-25 June, Athens, Greece, 2010.
- 109. A. Venkatram, S. Pournazeri, M. Princevac, D. Pankratz and Q. Jing, "Dispersion of Buoyant Emissions from Low Level Sources in Urban Areas", 31st NATO/SPS International Technical Meeting (ITM) on Air Pollution Modelling and its Application, 27 Sept 01 Oct, Torino, Italy, 2010.
- 108. S. Hosseini, Q. Li, A. Miller, M. Sharivastava, D. Cocker, W. Miller, S. Mahalingam, M. Princevac, D. Weise, M.T. Odman, J. Reardon, T. Johnson, H. Jung, "Particle size distribution from a controlled biomass burning in the laboratory using fast response particle instruments" WSSCI Spring 2010 Meeting, Boulder, March 21-23, 2010.
- 107. W. Qian, M. Princevac, A. Venkatram "Estimating urban dispersion meteorology from suburban measurements" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA., January 2010.
- 106. Q. Jing, A. Venkatram, M. Princevac, D. Pankratz "Modeling Dispersion of Buoyant Emissions from a Low Level Source in an Urban Area" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA, January 2010.
- 105. <u>H. Pan, C. Bartolome</u>, M. Princevac, R. Edwards "Influence of urban morphology on street level concentration: Water channel and field study in three Southern Californian Cities" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA, January 2010.
- 104. S. Pournazeri, H. Pan, E. Pellereau, M. Princevac "Localized effect of building height on street level flows and concentration: water channel modeling" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA, January 2010.
- 103. <u>C. Bartolome, S. Chen, X. Li, M. Princevac, A. Venkatram, D. Pankratz "Field and laboratory plume dispersion studies of buoyant plume release in an urban environment" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA, January 2010.</u>

- 102. <u>T. Maynard</u>, S. Hosseini, M. Princevac, S. Mahalingam, H. Jung, D. Cocker, W. Miller, D. Weise, W. Hao, R. Yokelson "Laboratory-based experimental measurement of particulate emission factors for wildland fuels" 90th AMS Annual Meeting, 16th Conference on Air Pollution Meteorology, 1, Atlanta, GA, January 2010.
- 101. M. Princevac, S. Pournazeri, A. Venkatram "Fiber Optic Assisted LIF Measurements in a Water Channel" 15th Int. Symp on Appl. Laser Techniques to Fluid Mechanics, 12, Lisbon, Portugal, July 2010.
- 100. A. Asa-Awuku, <u>C. Bartolome</u>, D. Cocker, S. Hosseini, H. Jung, J. Lozano, S. Mahalingam, <u>T. Maynard</u>, W. Miller, M. Princevac, L. Qi, M. Sharivastava, D. Switzer, B. Yokelson, I. Burling, S. Akagi, J. Roberts, P. Veres, A. Miller, D. Weise, W. Hao, S. Urbanski "New Tools for Estimating and Managing Local/Regional Air Quality Impacts of Prescribed Burns" Partners in Environmental Technology Technical Symposium and Workshop, Washington, D.C., December 2009.
- 99. <u>C. Bartolome</u>, <u>H. Pan</u>, M. Princevac, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano "Field measurements and numerical modeling of vehicular PM2.5 emissions in Los Angles and Huntington Beach with QUIC Model" 2009 UCTC conference, 1 page, Riverside, CA, February 2009.
- 98. <u>H. Pan</u>, M. Princevac, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano "The influence of urban morphometry on flow and dispersion of vehicular PM2.5 emissions in Southern Californian cities: field, laboratory and numerical study" 2009 UCTC conference, 1 page, Riverside, CA, February 2009.
- 97. <u>H. Pan, M. Princevac, C. Bartolome</u>, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano "Field, laboratory and numerical study of flow and dispersion of vehicular PM2.5 emissions in major arterials in Southern Californian cities" 3rd Southern California Symposium on Flow Physics, 1 page, San Diego, CA, April 2009
- 96. <u>C. Bartolome</u>, <u>H. Pan</u>, M. Princevac, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano "Laboratory, Field, and Numerical Modeling of Vehicular Emissions in Los Angles and Huntington Beach" Symposium for Undergraduate Research, Scholarship and Creative Activity, 1 page, Riverside, CA, May 2009
- 95. T. Maynard, M. Princevac, S. Mahalingam, J. Lozano "Laboratory study of particulate emissions factors of prescribed wildland fires" 3rd Southern California Symposium on Flow Physics, 1 page, San Diego, CA, April 2009
- 94. M. Michel, C. Bartolome, S. Chen, X. Li, M. Princevac "Distributed Power Generator Dispersion Simulation in a Water Channel" Symposium for Undergraduate Research, Scholarship and Creative Activity, 1 page, Riverside, CA, May 2009
- 93. <u>A. Fata, M. Michel, C. Bartolome, M. Princevac "Laboratory Modeling & Parameterization of Superfog Generation" SCCUR 2009</u>, 1, California State University Dominguez Hills, November 2009
- 92. <u>S. Pournazeri</u>, M. Princevac, A. Venkatram "Laboratory Measurements of flow and dispersion of pollutants released from near ground sources in urban areas" SoCal Symposium of Fluid Mechanics, Irvine, CA, April 2010
- 91. <u>G. Knight</u>, <u>S. Pournazeri</u>, M. Princevac "Laboratory Investigation of Air Quality Impact of D9stributed Power Generators" SCCUR 2009, 1, California State University Dominguez Hills, November 2009
- 90. <u>H. Pan</u>, M. Princevac, <u>C. Bartolome</u>, R. Edwards "Observed wind, turbulence, traffic flow and surface PM2.5 concentrations in 5 different built-environments" SoCal Symposium of Fluid Mechanics, Irvine, CA, April 2010
- 89. <u>C. Bartolome</u>, M. Princevac, A. Venkatram, S. Mahalingam "Modeling and Parameterization of Superfog" SoCal Symposium of Fluid Mechanics, Irvine, CA, April 2010
- 88. T. Maynard, M. Princevac "An Application of a Simple Free Convection Model to the Fire Flickering Phenomenon" SoCal Symposium of Fluid Mechanics, Irvine, CA, April 2010
- 87. <u>E. Gutierrez, S. Pournazeri, M. Princevac "Measuring the Final Rise of Pollution Emitted From a Stationary Point Source" Symp. for UG research, scholarship and creative activity, Riverside, CA, May 2010</u>
- 86. Q. Jing, D. Pankratz, M. Princevac, A. Venkatram, "Modeling Dispersion of Buoyant Releases in an Urban Area," *American Meteorological Society, 89th Annual Meeting*, Phoenix, AZ, January 2009.

- 85. M. Princevac, <u>H. Pan</u>, R. Edwards, M. Boarnet, J. Wu, "Water Channel Modeling of Flow and Dispersion of Traffic Related Emissions in Southern Californian Cities," July, *PHYSMOD 2009 International Workshop on Physical Modelling of Flow and Dispersion Phenomena*, Sint-Genesius-Rode, Belgium, August 2009.
- 84. M. Princevac, <u>H. Pan</u>, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano, "Field, Laboratory and Numerical Study of Turbulent Dispersion in Built Environments Surrounding Major Arterials in Southern Californian Cities," *The Sixth International Symposium on Turbulence and Shear Flow Phenomena*, Seoul, Korea, July 2009.
- 83. F. Freedman, A. Venkatram, S. Lee, M. Princevac, "Development of AERMOD-ready Meteorological Input Files for the South Coast Air Quality Management District," *A&WMA's 102nd Annual Conference & Exhibition*, Detroit, MI, June 2009, 1, 2009.
- 82. A. Venkatram, W. Qian, D. Pankratz, M. Princevac, "The Air Quality Impact of Distributed Generation Field Studies and Modeling," *7th International Conference on Air Quality-Science and Application*, Istanbul, Turkey, March 2009.
- 81. Y. Zhang, M. Princevac, S. Lee, "Sensible, Latent and Ground Heat Flux Model," *American Meteorological Society, 89th Annual Meeting*, Phoenix, AZ, January 2009, 4 pages, 2009
- 80. D. Altshuler, M. Princevac, <u>H. Pan</u>, J. Lozano, "PIV Measurements of Hovering Hummingbird," *The Society for Integrative and Comparative Biology (SICB) Annual Meeting*, Boston, MA, January 2009.
- 79. <u>H. Pan</u>, M. Princevac, R. Edwards, A. Sfazl, M. Boarnet, J. Wu, R. Lejano, "Field, Laboratory and Numerical Study on Flow and Dispersion of PM2.5 in Southern Californian Cities," *American Meteorological Society*, 89th Annual Meeting, Phoenix, AZ, January 2009, 4 pages, 2009
- 78. X. Li, S. Chen, M. Princevac, A. Venkatram, D. Pankratz, "Plume Rise and Ground-Level Concentration of Emission from a Distributed Power Generation Unit: Field Observations and Water Channel Modeling," *American Meteorological Society, 89th Annual Meeting*, Phoenix, AZ, January 2009.
- 77. W. Qian, M. Princevac, A. Venkatram, "Relationships between urban and suburban micrometeorological variables," *American Meteorological Society, 89th Annual Meeting*, Phoenix, AZ, January 2009.
- 76. M. Princevac, <u>H. Pan, C. Bartolome</u>, "Field, Laboratory and Numerical Study of Turbulent Dispersion in Built Environments," September, *9th European Meteorological Society (EMS) Annual Meeting*, Toulouse, France, September 2009.
- 75. J. Bühler, M. Princevac, A. Schleiss, "Forced plumes on an incline," *2nd International Symposium on Shallow Flows*, Hong Kong, China, December 2008.
- 74. <u>C. Bartolome, X. Li, S. Chen, M. Princevac, "Laboratory Modeling of the Distributed Power Generation," SCCUR 2008, Cal Poly Pomona, Pomona, CA, November 2008.</u>
- 73. J. Bühler, M. Princevac, "New Velocity And Buoyancy Scales For Gravity Currents And Jet-Like Flows," *Fifth International Symposium on Environmental Hydraulics*, Tempe, AZ, December 2007.
- 72. M. Princevac, X. Li, H. Pan, "Modeling of Urban Canopy Flows in a Water Channel," 12th Asian Congress of Fluid Mechanics, Daejeon, Korea, August 2008.
- 71. X. Li, N. Zimmerman, and M. Princevac, Local imbalance of turbulence in the atmospheric surface layer, 3rd UCR M.E. Graduate Research Symposium, Mar. 2008, Riverside, CA.
- 70. <u>C. Bartolome</u>, M. Princevac, "Laboratory Modeling of the Air Quality Impact of the Distributed Power Generation," *UGRC 2008*, Riverside, CA, May 2008.
- 69. <u>E. Gutierrez</u>, M. Princevac, "Near Source Modeling of Emissions from Major Arterials in Southern Californian Cities," *UGRC 2008*, Riverside, CA, May 2008.
- 68. <u>H. Pan</u>, J. Lozano, W. Tachajapong, A. Swanson, C. Kelley, S. Mahalingam, M. Princevac, "Wind tunnel study of particulate emissions, fire spread and velocity field within the flame," *The 2008 Spring Meeting of the Western States Section of the Combustion Institute*, Los Angeles, CA, March 2008.

- 67. A. Swanson, C. Kelley, B. Baldauf, F. Fendell, S. Mahalingam, M. Princevac, J. Lozano, W. Tachajapong, <u>H. Pan</u>, "Northrop Grumman Fire Tunnel Facility: Physical characteristics, velocity measurements and particulate matter emission in controlled fire propagation over level terrain," *Fire in the Southwest: Integrating Fire into Management of Changing Ecosystems, The Association for fire ecology regional conference*, Tucson, AZ, January 2008.
- 66. M. Princevac, <u>H. Pan, X. Li, M. Brown, "Flow Pattern Within Cubical Arrays Of Obstacles Water Channel Results," American Physical Society, Division of Fluid Mechanics 60th Annual Meeting (APS/DFD07), Salt Lake City, UT, December 2007.</u>
- 65. X. Li, N. Zimmerman, M. Princevac, "Local Imbalance of Turbulent Kinetic Energy and the Dissipation Parameterization in Surface Layer," *The Fifth International Symposium on Environmental Hydraulics (ISEH V)*, Tempe, AZ, December 2007.
- 64. X. Li, H. Pan, T. Cole, M. Princevac, "Flows Inside A Simple Urban Array: Water Channel Modeling Results," *Fifth International Symposium on Environmental Hydraulics*, Tempe, AZ, December 2007.
- 63. J. Lozano, W. Tachajapong, <u>H. Pan</u>, A. Swanson, C. Kelley, M. Princevac, S. Mahalingam, "Experimental Investigation of the Velocity Field in a Controlled Wind-aided Propagating Fire Using Particle Image Velocimetry," *The International Association for Fire Safety Science (IAFSS) symposium*, Karlsruhe, Germany, September 2008.
- 62. J. Buhler, M. Princevac, "A Common Depth Scale For Gravity Currents And Open Channel Flows," *32nd Congress of the International Association of Hydraulic Engineering and Research*, Venice, Italy, July 2007.
- 61. A. Venkatram, W. Qian, T. Zhan, M. Princevac, "Comparison Of Methods To Generate Meteorological Inputs For Modeling Dispersion In Coastal Urban Areas," 29th NATO/SPS International Technical Meeting (ITM) on Air Pollution and its Application, Aveiro, Portugal, September 2007.
- 60. A. Venkatram, M. Princevac, A. Luhar, W. Qian, "Estimating Meteorological Inputs For Dispersion Modeling In Urban Areas," 11th International Conference On Harmonization Within Atmospheric Dispersion Modelling For Regulatory Purposes, Cambridge, UK, July 2007, 5 pages, 2007
- 59. <u>H. Pan, X. Li, M. Princevac, "PIV and PLIF Measurements of Model Urban Flows in a Water Channel," 5th Joint ASME/JSME Fluids Engineering Conference, San Diego, CA, July 2007.</u>
- 58. X. Li, N. Zimmerman, and M. Princevac, Characteristics of the turbulent kinetic energy budget in the atmospheric surface layer, 2nd UCR M.E. Graduate Student Research Symposium, Feb. 2007, Riverside, CA.
- 57. <u>H. Pan, X. Li, M. Brown, J. Baik, S. Park, M. Princevac, "Mean flow pattern through a simple mock urban array water channel experiments and modeling," Seventh Conference on Coastal Atmospheric and Oceanic Prediction and Processes joint with the Seventh Symposium on the Urban Environment, American Meteorological Society, San Diego, CA, September 2007.</u>
- 56. X. Li, N. Zimmerman, M. Princevac, "Characterization Of Turbulent Kinetic Energy Budget In The Atmospheric Surface Layer," *16th Conference on Atmospheric and Oceanic Fluid Dynamics*, Santa Fe, NM, June 2007.
- 55. J. Grubbs, S. Pederson, N. Zimmerman, M. Princevac, "Measurement of Surface Fluxes Along Rural-Urban Transect," *Symposium for Undergraduate Research, Scholarship and Creative Activity*, Riverside, CA, May 2007.
- 54. X. Li, N. Zimmerman, M. Princevac, "Imbalance of Turbulent Kinetic Energy in the Atmospheric Surface Layer," *1st Southern California Symposium on Flow Physics*, Pasadena, CA, April 2007.
- 53. <u>H. Pan, X. Li, M. Princevac, "Flow Patterns and Dispersion Phenomena in a Simple Urban Environment," *1st Southern California Symposium on Flow Physics*, Pasadena, CA, April 2007.</u>
- 52. J.C.R. Hunt, M. Princevac, D.J. Carruthers, H.J.S. Fernando, "Modeling Slope Flows and Dispersion in Complex Terrain with Weak Geostrophic Winds," *European Geosciences Union General Assembly 2007*, Vienna, Austria, April 2007.
- 51. X. Li, N. Zimmerman, and M. Princevac, Turbulent characteristics of environmental flows during two recent field campaigns, 1st UCR M.E. Graduate Research Symposium, Apr. 2006, Riverside, CA.

- 50. N. Zimmerman, M. Princevac, "Characterization of the Turbulent Kinetic Energy Budget," *Souther California Conference for Undergraduate Research (SCCUR)* 2006, Los Angeles, CA, November 2006.
- 49. <u>J. Grubbs</u>, M. Princevac, "Water Channel Modeling of Environmental Flows," *2006 SCCUR*, Los Angeles, CA, November 2006.
- 48. H.J.S. Fernando, M. Princevac, R. Calhoun and J.C.R. Hunt, "Transport and Small-Scale Mixing in Topographically Dominated Stably Stratified Flows," *6th International Symposium on Stratified Flows (ISSF)*, Perth, Australia, November 2006.
- 47. J. Bühler, M. Princevac, "Tracer-based width and velocity scales for jet-like flows," *6th International Symposium on Stratified Flows (ISSF)*, Perth, Australia, November 2006.
- 46. H.J.S. Fernando, M. Princevac, J.C.R. Hunt, C. Dumitrescu, "Katabatic Flow Over Long Slopes: Velocity Scaling, Flow Pulsations and Effects of Slope Discontinuities," *12th Conference on Mountain Meteorology*, Santa Fe, NM, August 2006.
- 45. M. Princevac, H.J.S. Fernando, <u>A. Mills</u>, "Morning Breakup of a Nocturnal Cold Pool," *12th Conference on Mountain Meteorology*, Santa Fe, NM, August 2006.
- 44. M. Princevac, <u>T. Cole</u>, <u>X. Li</u>, "Laboratory modeling of a simple urban environment," *AAAS Pacific Division Meeting*, San Diego, CA, June 2006.
- 43. <u>T. Cole</u>, X. Li, <u>C. Eising</u>, M. Princevac, "Turbulence And Channeling In A Simple Urban Environment," *AMS 17th Symposium on Boundary Layers and Turbulence*, San Diego, May 2006.
- 42. M. Princevac, S. Lee, H. Fernando, E. Pardyjak, P. Monti, "A Mixing Parameterization for Stratified Turbulence in Geophysical Flows," *The 13th Ocean Sciences Meeting*, Honolulu, Hawaii, February 2006.
- 41. X. Li, M. Princevac, "Interactions of Urban and Marine Boundary Layers During the Wilmington 2005 Urban Dispersion Study," *Sixth Symposium on the Urban Environment*, Atlanta, GA, January 2006.
- 40. C. Eising, <u>T. Cole</u>, M. Princevac, "Laboratory Modeling of Urban Flow," *2005 Southern California Conference on Undergraduate Research*, Riverside, CA, November 2005.
- 39. N. Zimmerman, X. Li, M. Princevac, "Sea Breeze Patterns During the Wilmington 2005 Urban Dispersion Study," 2005 Southern California Conference on Undergraduate Research, Riverside, CA, November 2005.
- 38. X. Li, M. Princevac, R. Calhoun, "Accuracy of a Coherent Doppler Lidar for the Urban Boundary Layer Measurements," *Proceedings of IMECE2005, ASME International Mechanical Engineering Congress and Exposition, November 5-11, 2005 Orlando, Florida*, Orlando, FL, November 2005.
- 37. M. Princevac, <u>P. Diagne</u>, R. Calhoun, "LIDAR based Measurements of Turbulent Dissipation above Urban Areas," *13th Symposium on Meteorological Observations & Instrumentation*, 20-23 June 2005, Savannah, GA, 1.3, Savannah, GA, June 2005.
- 36. R. Calhoun, A. Wieser, M. Princevac, C. Kottmeier, "Comparison of lidar data with tower, profiler, radiosonde, and tethersonde data," *2nd Symposium on Lidar Atmospheric Applications*, San Diego, CA, January 2005.
- 35. H. Fernando, M. Princevac, "Turbulent Entrainment into Natural Gravity-Driven Flows," *American Physical Society, The 57th Annual Meeting of the Division of Fluid Dynamics*, Seattle, WA, November 2004.
- 34. R. Calhoun, R. Heap, M. Princevac, J. Sommer, H. Fernando, "Measurement of winds flowing toward an urban area using coherent doppler lidar," *Fifth Symposium on the Urban Environment*, Vancouver, BC, Canada, August 2004.
- 33. R. Heap, R. Calhoun, M. Princevac, J. Sommer, "Lidar Measurements of atmospheric flow through a downtown cluster of high-rise buildings," *Fifth Symposium on the Urban Environment*, Vancouver, BC, Canada, August 2004.
- 32. D. Zajic, H. Fernando, M. Princevac, R. Calhoun, "Flow and turbulence in urban canopies," *Fifth Symposium on the Urban Environment*, Vancouver, BC, Canada, August 2004.
- 31. J. Holeman, M. Princevac, S. Grossman-Clarke, S. Lee, H. Fernando, R. Calhoun, "Joint urban 2003 surface energy budget measurements and analysis," *XXI ICTAM*, Warsaw, Poland, August 2004.

- 30. M. Princevac, R. J. Calhoun, H. Fernando, "Doppler-LIDAR Deployment During JU2003 Experiment," XXI ICTAM, Warsaw, Poland, August 2004.
- 29. M. Princevac, H. J. S. Fernando, P. Monti, "On quantifying waves and turbulence contributions to momentum and buoyancy transports in katabatic flows," *11th Conference on Mountain Meteorology*, Mt. Washington Valley, NH, June 2004.
- 28. H. J. S. Fernando, M. Princevac, E. Pardyjak, A. Dato, "The decay of convective turbulence during evening transition period," *11th Conference on Mountain Meteorology*, Mt. Washington Valley, NH, June 2004.
- 27. M. Princevac, H. J. S. Fernando, "Initial stage of upslope flow development on inclined surfaces," *Tenth Asian Congress of Fluid Mechanics*, Peradeniya, Sri Lanka, May 2004.
- 26. M. Princevac, R. Calhoun, D. Zajic, J. E. Holeman, R. Heap, H. J. S. Fernando, "Arizona State University's Contribution to the Joint Urban 2003 Experiment: An Overview," *Tenth Asian Congress of Fluid Mechanics*, Peradeniya, Sri Lanka, May 2004.
- 25. R. Calhoun, R. Heap, J. Sommer, M. Princevac, J. Peccia, H. Fernando, "Tracking aerosol plumes-lidar, modeling, and in situ measurement," *SPIE Defense & Security Symposium, Sensors, Command, Control, Communications, and Intelligence Technologies for Homeland Security and Homeland Defense*, Orlando, FL, April 2004.
- 24. M. J. Brown, D. Boswell, G. Streit, M. Nelson, T. McPherson, T. Hilton, E. R. Pardyjak, S. Pol, P. Ramamurthy, B. Hansen, P. Kastner-Klein, J. Clark, A. Moore, D. Walker, N. Felton, D. Strickland, D. Brook, M. Princevac, D. Zajic, R. Wayson, J. MacDonald, G. Fleming, D. Storwold, "Joint Urban 2003 street canyon experiment," American Meteorological Society, 84th AMS Annual Meeting 2003, Seattle, WA, January 2004.
- 23. R. K. Newsom, D. Ligon, R. Calhoun, E. Creegan, R. Heap, M. Princevac, "First retrieval from dual Doppler JU2003," *BCACIMO 2003*, Monterey, CA, September 2003.
- 22. J. C. R. Hunt, S. Zilitinkevich, F. Nieuwstadt, H. J. S. Fernando, M. Princevac, "Eddy structure and mean flow effects in strong convection," *EGS-AGU-EUG Joint Assembly*, Nice, France, April 2003.
- 21. H. J. S. Fernando, M. Princevac, J. C. R. Hunt, "Unsteady katabatic winds on mountain slopes," *EGS-AGU-EUG Joint Assembly*, Nice, France, April 2003.
- 20. M. Princevac, A. Mills, H. J. S. Fernando, W. C. Chan, "Destruction of cold pools in complex terrain air basins," *Bull. American Physical Society 2002 Division of Fluid Dynamics*, San Diego, CA, November 2002.
- 19. M. Princevac, G. B. Delgado, H. J. S. Fernando, "Flows in complex terrain: The generation of anabatic flow on simple slopes. Poster presentation," *Building a Vision for Higher Education in Science, Technology, Engineering and Math*, Albuquerque, NM, September 2002.
- 18. S. M. Lee, M. Sinesi, M. Princevac, D. Zajic, H. J. S. Fernando, J. Anderson, "A numerical study on the spatial and temporal variation of ozone within the Phoenix valley," 6th Annual George Mason University Transport and Dispersion Modeling Workshop, Fairfax, VA, July 2002.
- 17. M. Princevac, P. Monti, H. J. S. Fernando, T. A. Kowalewski, E. R. Pardyjak, "Turbulence and mixing in the nocturnal boundary layer over a slope VTMX field program results," *10th Conference on Mountain Meteorology*, Park City, UT, June 2002.
- 16. E. R. Pardyjak, M. J. Brown, M. A. Nelson, D. Zajic, M. Princevac, C. Biltoft, J. C. Klewicki, "Buildings effects on thermal stratification during the MUST trials," *American Meteorological Society, Fourth Symposium on the Urban Environment 2002*, Norfolk, VA, May 2002.
- 15. M. Brown, E. Pardyjak, D. Zajic, M. Princevac, G. Streit, C. Biltoft, "The MUST field experiment: Mean and Turbulent Wind Fields at the Upstream edge of a building array," *American Meteorological Society, Fourth Symposium on the Urban Environment 2002*, Norfolk, VA, May 2002.
- 14. S. Lee, M. Sinesi, M. Princevac, D. Zajic, J. L. McCulley, H. J. S. Fernando, J. Anderson, "A study on vertical distribution of ozone in the PBL of the Phoenix Valley," *12th Joint Conference on the Applications of Air Pollution Meteorology with the Air and Waste Management Association*, Norfolk, VA, May 2002.

- 13. D. Zajic, M. Princevac, J. Kim, H. J. S. Fernando, J. J. Baik, "Flow and turbulence surrounding a building cluster," *American Meteorological Society, Fourth Symposium on the Urban Environment 2002*, Norfolk, VA, May 2002.
- 12. M. Princevac, H. J. S. Fernando, W. C. Chan, T. A. Kowalewski, P. Monti, J. Anderson, "Slope flow measurements during vertical transport and mixing (VTMX) Field Experiment Salt Lake City 2000," 3rd International Symposium on Environmental Hydraulics, Tempe, AZ, December 2001.
- 11. W. C. Chan, H. J. S. Fernando, M. Princevac, "Daytime complex terrain transport A criterion for the generation of anabatic flow," *3rd International Symposium on Environmental Hydraulics*, Tempe, AZ, December 2001.
- T. Kowalewski, P. Monti, W. C. Chan, M. Princevac, H. J. S. Fernando, "Vertical transport and mixing in the Salt-Lake Basin," 3rd International Symposium on Environmental Hydraulics, Tempe, AZ, December 2001, 6 pages, 2001.
- 9. H. J. S. Fernando, M. Princevac, J. C. R. Hunt, W. C. Chan, "Studies on up-slope flows in complex topographies," *Bull. American Physical Society, 2001 Division of Fluid Dynamics*, San Diego, CA, November 2001, 1 pg, 2001.
- 8. M. Princevac, H. J. S. Fernando, W. C. Chan, "The generation of anabatic flows: theoretical modeling and experiments," *Bull. American Physical Society.* 2001 Division of Fluid Dynamics, San Diego, CA, November 2001, 1 pg, 2001.
- 7. M. Princevac, W. C. Chan, H. J. S. Fernando, "Flow in complex terrain: studies on anabatic flows," *International Workshop on Physical Modeling of Flow and Dispersion Phenomena*, Hamburg, September 2001, 4 pgs, 2001.
- 6. M. Princevac, W. C. Chan, "ASU contribution to the vertical transport and mixing (VTMX) field experiment-Salt Lake City 2000," *17th Arizona Fluid Mechanics Conference*, Tucson, AZ, February 2001, 1 pg, 2001.
- 5. F. Yu, N. S. Berman, M. Princevac, W. C. Chan, "Nocturnal boundary layer structure in Salt Lake Valley during VTMX field experiment," *17th Arizona Fluid Mechanics Conference*, Tucson, AZ, February 2001, 1 pg, 2001.
- 4. W. C. Chan, M. Princevac, "A criterion for the generation of anabatic flow," 17th Arizona Fluid Mechanics Conference, Tucson, AZ, February 2001, 1 pg, 2001.
- 3. H. J. S. Fernando, M. Princevac, J. C. R. Hunt, E. Pardyjak, "Thermal circulation in complex terrain: A case of urban fluid mechanics," *5th International Symposium of Stratified Flows*, British Columbia, CA, July 2000, 649-654, 2000.
- 2. M. Princevac, H. J. S. Fernando, D. L. Boyer, "Modeling of complex terrain flow processes," *Air and Waste Management Association 93rd Annual Conference*, Salt Lake City, UT, June 2000, 10 pgs, 2000.
- 1. M. Princevac, "Complex terrain," 16th Arizona Fluid Mechanics Conference, Tempe, AZ, February 2000, 1 pg, 2000.

In Public Media

- Reuters: http://www.reuters.com/video/2014/04/22/reuters-tv-california-study-addresses-burning-quest?videoId=312682494&videoChannel=118065, This interview was featured on the Wall Street Daily website among others (http://www.wallstreetdaily.com/2014/04/24/wildfire/)
- NPR: http://www.npr.org/2014/05/09/310466013/ahead-of-wildfire-season-scientists-study-what-fuels-fires
- Al Jazeera
- Living the Promise: https://www.youtube.com/watch?v=SoCdmhnDY7g
- Discovery Channel, Canada: http://review.bellmedia.ca/view/1194145538
- Fox News: http://video.foxnews.com/v/3657158956001/scientists-using-wind-tunnel-to-study-what-fuels-wildfires/#sp=show-clips
- The Guardian: http://www.theguardian.com/us-news/2015/nov/08/university-of-california-riverside-forest-fire-wildfire-lab-research
- CNBC: http://www.cnbc.com/2016/05/10/how-climate-change-is-creating-a-new-era-of-wildfires-.html
- National Geographic: http://video.nationalgeographic.com/video/news/160628-indoor-wildfire-prediction-vin
- Turkish TV, https://www.trtworld.com/, https://www.youtube.com/watch?v=B2GCusr6rFw

_	UCR News May 2019, https://news.ucr.edu/articles/2019/05/22/seeing-inside-superfog