Organizing Committee

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Dr. Aram Amassian is Assistant Professor of Materials Science and Engineering at KAUST, where he leads the Organic Electronics and Photovoltaics research group. Previously, as a Postdoctoral Research Fellow in the Materials Science and Engineering Department at Cornell University, Dr. Amassian conducted his research in the area of organic electronics. Most notably, he spearheaded a collaborative effort to investigate the formation of molecular semiconductor thin films on dielectric surfaces by time-resolved synchrotron X-ray scattering techniques. This work has led to a renewed understanding of the relationship between molecular-scale processes on surfaces and the performance of organic thin film transistors. It has also led to the observation of the highest field-effect mobility in a perylene derivative. Dr. Amassian has also been involved in a joint Cornell University and Corning project to develop a high-performance polymer semiconductor for large-area, mechanically flexible electronics. Dr. Amassian received his bachelor's and doctorate degrees in Engineering Physics from École Polytechnique de Montreal, Canada.

Nader Behdad
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Nader Behdad received the BSc degree in Electrical Engineering from Sharif University of Technology (Tehran, Iran) in 2000 and MSc and PhD degrees in Electrical Engineering from University of Michigan (Ann Arbor, MI, U.S.A.) in 2003 and 2006, respectively. Currently he is an associate professor at the Electrical and Computer Engineering department of the University of Wisconsin (Madison, WI, U.S.A.) From 2009-2013 he was an assistant professor in the Department of Electrical and Computer Engineering of the University of Wisconsin and from 2006 to 2008, he was as an assistant professor in the Department of Electrical Engineering and Computer Science of the University of Central Florida (Orlando, FL, U.S.A.). Dr. Behdad's research expertise is in the area of applied electromagnetics. In particular, his research interests include electrically-small antennas, antenna arrays, antennas for biomedical applications, biomedical applications of RF/microwaves, periodic structures, frequency selective surfaces, passive high-power microwave devices, metamaterials, and biomimetics and biologically inspired systems in electromagnetics.

Dr. Behdad is the recipient of the 2014 R. W. P. King Prize Paper Award and the 2012 Piergiorgio L. E. Uslenghi Letters Prize Paper Award of the IEEE Antennas and Propagation Society. He is also the recipient of the 2011 CAREER award from the U.S. National Science Foundation, the 2011 Young Investigator Award from the United States Air Force Office of Scientific Research, and the 2011 Young Investigator Award from the United States Office of Naval Research. He received the Office of Naval Research Senior Faculty Fellowship in 2009, the Young Scientist Award from the International Union of Radio Science (URSI) in 2008, the Horace H. Rackham Predoctoral Fellowship from the University of Michigan in 2005-2006, the best paper awards in the Antenna Applications Symposium in Sep. 2003, and the second prize in the paper competition of the USNC/ URSI National Radio Science Meeting, Boulder, CO, in January 2004. His graduate students were the recipients of the ten different awards/recognitions at the IEEE Pulsed Power & Plasma Science (2013), IEEE AP-S/URSI Symposium (2010, 2012, 2013, 2014), and the Antenna Applications Symposium (2008, 2010, 2011). Dr. Behdad is currently serving as an Associate Editor for *IEEE Antennas and Wireless Propagation Letters* and served as the co-chair of the technical program committee of the 2012 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting.

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Youcef Bentoutou received his engineer, magister, and doctorate degrees in Electrical Engineering from the University of Sidi Bel Abbes, Algeria in 1997, 2000, and 2004, respectively. His research was mainly on developing image registration algorithms for applications in medical and satellite imaging. Since March 2002, he has been working as a research team leader at the Center for Space Techniques (Centre des Techniques Spatiales) in Algeria. He is also a senior researcher in the Communication Networks, Architecture, and Multimedia laboratory at the University of Sidi Bel Abbes (Algeria). From November 2000 to March 2002, Dr. Bentoutou recieved training towards the development of the first Algerian microsatellite Alsat-1 at Surrey Space Centre (SSC), University of Surrey (United Kingdom).

He received the 2009 TWAS-AAS-Microsoft award for young scientists for his contributions to the fields of Pattern Recognition and Information Processing. He was also a recipient of the best research paper prize organized by the Algerian Ministry of Higher education and Scientific Research in 2008.

In the beginning of 2011, he became Research Director of System Architecture and Signal Processing at the Center for Space Techniques. Since the beginning of 2013, he joined the Center for Satellite Development (CDS: Centre de développement des Satellites) in Oran. His principal research interests are in the fields of remote sensing, satellite onboard data handling, and space radiation environment and effects analysis and mitigation. He has supervised 15 masters and PhD students and has published over 40 proceedings, book chapters, and papers in international journals.

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After the completion of an engineering degree (2005) in Water and Soil Management and a master's degree in Environmental Engineering and Management, Dr. Bouaziz worked in the private sector. Between 2006 and 2007 he was involved in environmental impact studies by using GIS techniques in a Tunisian-Italian company for environmental engineering. During this time, he had the opportunity to participate in several land and water management projects for rural regions in northern Tunisia.He pursued PhD in 2008 with the Remote Sensing Group at the Technical University of Freiberg in Germany. The focus of Dr. Bouaziz's doctoral thesis was the monitoring of land degradation in Ethiopia, Tunisia, and Brazil using remote sensing and GIS advanced techniques. Throughout his academic research from the undergraduate to doctoral level, he has specialized in developing models to study land degradation and interactions with land use, vegetation cover, and climatic parameters. After completing his PhD thesis, Dr. Bouaziz received an Alexander von Humboldt Foundation grant to continue his postdoctoral research at the Technical University of Dresden. Since 2014 he has been also actively involved as a research associate at the Faculty of Environmental Sciences in Dresden on several projects dealing with environmental sustainability.

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Dr. Cola is an assistant professor in the George W. Woodruff School of Mechanical Engineering and the School of Materials Science and Engineering at the Georgia Institute of Technology. He received a BE (2002) and MSc (2004) from Vanderbilt University while a member of the Vanderbilt Football Team, and a PhD (2008) from Purdue University, all in Mechanical Engineering. Dr. Cola has received prestigious early career research awards from DARPA (2009), NSF (2011), the US Army (2013), and received the Presidential Early Career Award for Scientist and Engineers (PECASE) in 2012 from President Obama for his work in nanotechnology, energy, and outreach to high school art and science teachers and students. He was awarded the 2013 AAAS Early Career Award for Public Engagement with Science and founded Carbice Nanotechnologies, Inc. in 2012 to commercialize carbon nanotube thermal interface materials. Dr. Cola's work is currently focused on characterization and design of thermal transport and energy conversion in nanostructures and devices. He is also interested in the scalable fabrication of organic and organic-inorganic hybrid nanostructures for novel use in technologies such as thermal interface materials, thermoelectrics and thermo-electrochemical cells, infrared and optical rectenna, and materials that can be tuned to regulate the flow of heat.

James D. Harwood
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James Harwood is an Associate Professor of Ecology in the Department of Entomology at the University of Kentucky. His research program seeks to understand mechanisms of foraging by generalist predators and identify their role in biological control through the integration of molecular techniques, behavioral studies and field experiments. Understanding the forces that regulate the abundance of these natural enemies can provide information that discerns the role of prey biodiversity and habitat management on predation dynamics. These research projects seek to understand how interactions between natural enemy and prey communities contribute to the provisioning of ecosystem services. His research has been supported by over $5 million in research funding from national and international funding agencies, focusing on developing a greater understanding of world agriculture and reducing the reliance on chemical input for crop production. James has published over 60 peer-reviewed research papers and given hundreds of presentations including plenary lectures in China, Vietnam and Brazil. In addition, James is the founding Editor-in-Chief of *Food Webs*, an interdisciplinary journal that published papers on the structure and function of food webs, and is an Editor of *Biological Control*. He also served as President of the International Branch of the Entomological Society of America and is the current secretary/treasurer of the International Organization for Biological Control.

Mandë Holford
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Dr. Mandë Holford is as an Assistant Professor of Chemistry at Hunter College and CUNY-Graduate Center, New York, with a scientific appointment at the American Museum of Natural History. Her dual appointment reflects her interdisciplinary research, which combines chemistry and biology to discover, characterize, and deliver novel neuropeptides from venomous marine snails (cones snails, terebrids, and turrids) as tools for manipulating cell signaling in the nervous system. She has received funds from the National Science Foundation (NSF), the National Institutes of Health (NIH), and Alfred P. Sloan Foundation to support her independent research. She was recently named a New Champion Young Scientist by the World Economic Forum. In 2013, Dr. Holford was awarded the prestigious Camille Dreyfus Teacher-Scholar Award. In 2011 she was awarded an NSF CAREER Award, and named a 21st Century Chemist in the NBC-Learn, Chemistry Now series. Dr. Holford has a sustained and active involvement in science education and advancing the public understanding of science. She is co-founder of KillerSnails.com, a digital educational tool. In the area of international science policy, she is an AAAS Science & Technology Fellow, an inaugural member of the World Academy of Young Scientist (WAYS), and has served on the Advisory Committee for Term Members of the Council on Foreign Relations. Dr. Holford received her PhD in Synthetic Protein Chemistry from The Rockefeller University.

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Dr. Rihab Nasr is an associate professor in the Department of Anatomy, Cell Biology and Physiology at the American University of Beirut. Dr. Nasr received her PhD from the University of Paris VII in France. Her major research activities in basic and translational research focus on developing targeted therapies for human leukemias and she is currently interested in the targeting of leukemic stem cells in chronic myeloid leukemia (CML) through multiple approaches. Dr. Nasr is also interested in microRNAs and their implication in cancer, specifically breast cancer, and her second line of research is to determine distinctive microRNA expression patterns in Lebanese patients that can predict early onset breast cancer. Dr. Nasr has held several extramural research grants, has co-authored many articles in leading scientific journals including *Nature Medicine, Cancer Cell, Blood* and the *International Journal of Cancer*. Dr. Nasr received the Best Biomedical research award from Qatar Foundation in 2011, was selected as one of the seven top Arab Women by Sayidati magazine for the year 2013 and was the recipient of UNESCO L'Oreal "For women in Science" Levant and Egypt fellowship in 2014.

Jason Schrum (Organizing Committee Chair)
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Dr. Jason P. Schrum is the Lead for Integrative Activities in the Office of Competitive Research Funds at the King Abdullah University of Science and Technology. In this role, Dr. Schrum identifies new innovative research opportunities where results may translate into meaningful Education and Economic Development outcomes. Prior to joining KAUST, Jason was the Scientific Affairs Manager in the Office of the Senior Vice President of Pfizer, BioTherapeutics R&D and Cambridge/Boston Site Head where he established and managed collaborations and partnerships with industry and academic partners, including the MIT Synthetic Biology Center and 23andMe. Before joining Pfizer, he was Senior Project Manager at NAXION, a former division of Booz Allen Hamilton, where he managed business intelligence, strategy, and lifecycle management cases with large pharmaceutical and biotech companies. Prior to NAXION, Jason was the Founding Scientist of Moderna Therapeutics, the mRNA Therapeutics company, where he developed the founding IP estate with Flagship Counsel, seed financing, operations, and scientific programs in chemistry, manufacturing, and biological platform expansion and led the preclinical development of the lead drug candidate compound leading to a strategic partnership with AstraZeneca. Dr. Schrum spun Moderna Therapeutics out of the Venture Creation innovation arm of Flagship Ventures, a life science venture capital firm where he was a Flagship Entrepreneurial Fellow.

He has authored publications in the journals *Nature, JACS, JBC,* and *Cold Spring Harbor Lab Press*. He has several issued US Patents and numerous pending patent applications. He completed his PhD at Harvard Medical School in Biological Chemistry and Molecular Pharmacology with Jack W. Szostak, 2009 Nobel Laureate in Medicine. Jason graduated with high honors from the University of Michigan with degrees in Cellular and Molecular Biology, Music History, and Harpsichord Performance.

Joy Ward (Organizing Committee Chair)
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Joy Ward is a professor in the Department of Ecology and Evolutionary Biology and is the Wohlgemuth Faculty Scholar at the University of Kansas. She received her Ph.D. degree from Duke University and was a post-doctoral fellow at the University of Utah. Joy's research focuses on understanding how global change factors such as rising atmospheric CO2, changing precipitation regimes, and increasing temperatures will alter the physiology and development of plants. Recently, she has been active in elucidating the mechanisms that control altered flowering times in response to elevated CO2 that is predicted to occur in the next 50 years. In addition to studying how plants will respond to future conditions, she also investigates how plants responded to past conditions, particularly low CO2 levels that occurred during the last glacial period (20,000 years ago). For this work she uses plant collections at the La Brea Tar pits in southern California and a packrat dwellings collection that she curates at the University of Kansas. Joy received a CAREER award from the U.S. National Science Foundation, as well as the 2009 Presidential Early Career Award for Scientists and Engineers (PECASE) from President Obama. She also served as the U.S. Chair for the Japanese-American Frontiers of Science Program and as a U.S. science delegate to Uzbekistan.

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Dr. Elizabeth J. Wilson is a Professor of Energy and Environmental Policy and Law at the Humphrey School of Public Affairs at the University of Minnesota. She studies how energy systems are changing in the face of new technologies and new societal pressures. Her work focuses on the implementation of energy and environmental policies and laws in practice. She studies how institutions support and thwart energy system transitions and focuses on the interplays between technology innovation, policy creation, and institutional decision making. Her recent books include Energy Law and Policy (West Academic Publishing) (with Davies, Klass, Tomain and Osofsky) and Smart Grid (R)evolution: Electric Power Struggles (Cambridge Press) (with Stephens and Peterson). Wilson's research group is working on two NSF supported grants on media and stakeholder perceptions of Smart Grid technologies and on decision making in Regional Transmission Organizations.

Wilson was recently awarded a 2015 Andrew Carnegie Fellowship and was selected as a 2014-5 CIC Academic Leadership Fellow. She was chosen as a Leopold Leadership Fellow in 2011. She spent the 2009-2010 academic year as a visiting professor at Tsinghua University, in Beijing, supported by

McKnight Land-Grant Professorship. Prior to joining the University of Minnesota she worked with the U.S. Environmental Protection Agency and before that Wilson worked in Belgium, Burundi and Tanzania. She holds a doctorate in Engineering and Public Policy from Carnegie Mellon University.

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Mourad Zghal is a professor at the University of Carthage, Tunisia. He received his PhD in Electrical Engineering from Tunis El-Manar University in 2000. His scientific activities are mainly focused on integrated optical devices, design and characterization of photonic crystal fibers, and nonlinear propagation of ultrashort pulses. Prof. Zghal has served on numerous program and steering committees of international scientific conferences and was co-chair of the 2013 edition of the Education and Training in Optics and Photonics (ETOP) Conference. In addition to his research activities, Prof. Zghal has been active in promoting photonics in Tunisia and Africa. He was a 2002 co-founder and current president (2012-2015) of the Optical Society of Tunisia, a member of the ICO family. He also co-founded the African Laser Center, an organization encouraging the exchange of researchers and students across Africa. Prof. Zghal has been awarded the 2008 ICO/ICTP Gallieno Denardo prize for "his original work in the development of numerical modelling techniques for photonic crystal fibres, and for his active commitment aimed at the diffusion of research in optics in Africa." Prof. Zghal is senior member of OSA and a SPIE Fellow.