MAS 2018 COUNCIL – OFFICERS

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Strategic Planning	Keana Scott
Sustaining Membership	Lucille Giannuzzi
Topical Conferences	Paul K. Carpenter

PAST PRESIDENTS

1968	L.S. Birks
1969	K.F.J. Heinrich
1970	R.E. Ogilvie
1971	A.A. Chodos
1972	K. Keil
1973	D.R. Beaman
1974	P. Lublin
1975	J.E. Colby
1976	E. Lifshin
1977	J.I. Goldstein
1978	J.D. Brown
1979	D.F. Kyser
1980	O.C. Wells
1981	J.R. Coleman
1982	R.L. Myklebust
1983	R. Bolon
1984	D.C. Joy
1985	D.E. Newbury
1986	C.G. Cleaver
1987	C.E. Fiori
1988	W.F. Chambers
1989	D.B. Wittry
1990	A.D. Romig, Jr
1991	J.T. Armstrong
1992	D.B. Williams
1993	T.G. Huber
1994	J.A. Small
1995	J.J. McCarthy
1996	D.E. Johnson
1997	J.R. Michael
1998	R.B. Marinenko
1999	J.J. Friel
2000	C.E. Lyman
2001	R.W. Linton
2002	G.P. Meeker
2003	E.S. Etz
2004	P.K. Carpenter
2005	I.H. Musselman
2006	R. Gauvin
2007	P.G. Kotula
2008	I.M. Anderson
2009	C. Johnson
2010	E.P. Vicenzi
2011	J.H.J. Scott
2012	J.F. Mansfield
2013-14	K.L. Bunker
2015-16	T.F. Kelly

Major Society Awards

DUNCUMB AWARD FOR EXCELLENCE IN MICROANALYSIS (2018)

Richard D. Leapman
National Institutes of Health

Richard Leapman received his education at Peterhouse, Cambridge University, UK, where he obtained a B.A. in Natural Sciences, followed by a Ph.D. in physics from the Cavendish Laboratory under the supervision of Prof. Vernon Ellis Cosslett. He then trained as a postdoctoral fellow in the Department of Materials at the University of Oxford, and also under the mentorship of Prof. John Silcox in the Department of Applied and Engineering Physics at Cornell University, where he contributed to the development of electron energy loss spectroscopy (EELS) for the nanoscale characterization of materials. Dr. Leapman subsequently moved to the National Institutes of Health to develop methods that combined scanning transmission electron microscopy (STEM) and EELS for analyzing the organization and composition of cells and supramolecular assemblies. More recently, his group has developed techniques based on STEM tomography for imaging the 3D ultrastructure of cells, as well as serial block face SEM approaches for determining nanoscale tissue architecture. Dr. Leapman received the Presidential Science Award from the Microbeam Analysis Society and was elected a Fellow of the Microscopy Society of America in 2011. He is currently an Editor of the Journal of Microscopy, a member of the editorial boards of other microscopy and nanotechnology journals, and has participated on national scientific advisory committees, including the one for the Advanced Photon Source at Argonne National Laboratory. Since 2006, Dr. Leapman has served as the Scientific Director of the intramural program of the National Institute of Biomedical Imaging and Bioengineering, NIH, where he also heads the Laboratory of Cellular Imaging and Macromolecular Biophysics.

PREVIOUS AWARDEES

2007	D.B. Williams
2008	J. I. Goldstein
2009	D.E. Newbury
2010	D.C. Joy
2011	J.R. Michael
2012	J. Bentley
2013	E. Lifshin
2014	O. L. Krivanek
2015	P. J. Statham
2016	David Muller
2017	Thomas F. Kelly

KURT F.J. HEINRICH AWARD (2018)

Yoosuf N. Picard
Carnegie Mellon University

Professor Picard obtained a B.S. in Mechanical Engineering from Louisiana Tech University in 2001 and a Ph.D. in Materials Science and Engineering from the University of Michigan-Ann Arbor in 2006. During his graduate career, he was a Microsystems Engineering and Science Applications Fellow at Sandia National Laboratories where he researched focused ion beam applications as well as pulsed laser ignition phenomenon in energetic thin films. Following his doctoral research on materials modifications by femtosecond lasers, he was a National Research Council postdoctoral research associate at the U.S. Naval Research Lab (NRL), where he conducted electron microscopy studies of GaN devices, SiC thin films, and metal-oxide nanowires. He joined the faculty at Carnegie Mellon University (CMU) in 2009 as an assistant research professor in the Materials Science and Engineering Department and was later promoted to associate research professor in 2014. His research group develops and applies advanced electron microscopy methods for quantitative microstructural characterization and *in situ* analysis of defect behavior in nanoscale devices, ceramic surfaces and new metal alloys. Yoosuf continues to progress electron channeling contrast imaging (ECCI) for non-destructive defect identification, with interests in developing defect engineering strategies for bulk crystalline surfaces. He is an active member of the Minerals, Metals and Materials Society (TMS), Microscopy Society of America (MSA) and Microanalysis Society (MAS). He served as MAS Director (2015-2018) as well as a co-organizer for the MAS Topical Conferences on EBSD 2012, 2014 and 2016. He has also served as leader of the MSA "Electron Crystallography and Automated Mapping Techniques" focused interest group. He is the Program Chair for Microscopy and Microanalysis 2018. Yoosuf is editor for the journal *Microscopy and Microanalysis.* At Carnegie Mellon University, he advises the MSE Graduate Student Advisory Council and serves on the steering committee for the Energy Science Technology & Policy Master's degree program. Yoosuf teaches courses on materials characterization and electron microscopy for both undergraduate and graduate students. He has co-authored over 70 peer-reviewed publications and was a recipient of the Birks Award for best contributed paper at Microscopy and Microanalysis 2009.

PREVIOUS AWARDEES

1986	P.J. Statham
1987	J.T. Armstrong
1988	D.B. Williams
1989	R.D. Leapman
1990	R.W. Linton
1991	A.D. Romig, Jr.
1992	S.J. Pennycook
1993	P.E. Russell
1994	J.R. Michael
1995	E.N. Lewis
1997	R. Gauvin
1998	V.P. Dravid
1999	J. Bruley
2000	H. Ade
2001	C. Jacobsen
2002	D.A. Wollman
2005	M. Watanabe
2006	M. Toth
2007	G. Kothleitner
2008	P.G. Kotula
2009	D. Drouin
2010	H. Demers
2011	L.N. Brewer
2012	E.A. Marquis
2013	J.M. LeBeau
2014	B.P. Gorman
2015	P. Pinard
2016	Julien Allaz
2017	Andrew Herzing

PRESIDENTIAL SCIENCE AWARD (2018)

M. Grace Burke
University of Manchester,
United Kingdom

Prof. M. Grace Burke is the Director of the Materials Performance Centre at the University of Manchester, where she leads investigations of materials' behavior in nuclear power systems, with particular emphasis on the role of microstructure. In addition to her MPC role, she was also Director of the Electron Microscopy Centre at the University of Manchester from 2012 through 2016. Prior to joining the University in late 2011, she acquired extensive experience in materials for power generation during a her career in the US nuclear industry with research positions at the Westinghouse Science and Technology Center, and the Bettis Atomic Power Laboratory in Pittsburgh, where she was the Consultant Scientist in Materials Technology. Including prior research experience at the US Steel Research Laboratory, she has over 35 years of expertise in steels, materials of construction for nuclear power plants, irradiation damage, SCC, and hydrogen embrittlement of structural alloys. She is particularly known for her application of advanced microscopy/ microanalysis techniques to nuclear materials research, and to the microstructural characterisation of complex materials. Her research into irradiation damage using AP-FIM provided the first evidence of the complex solute-enriched clusters responsible for the irradiation-induced hardening/degradation of welds in PWRs. Her current research continues to involve the application of advanced analytical TEM and in situ ATEM in liquids and gases to study the nanoscale phenomena leading to environment-sensitive degradation of structural alloys. Grace is a recognized expert in numerous international nuclear science and technology organisations including NUGENIA, ICG-EAC, and IGRDM. Grace is a Fellow of ASM International, the Institute of Materials, Minerals and Mining (UK), the Microscopy Society of America, and the Royal Microscopical Society.

PREVIOUS AWARDEES

1977	R. Castaing
1978	K.F.J. Heinrich
1979	P. Duncumb
1980	D.B. Wittry
1981	S.J.B. Reed
1982	R. Shimizu
1983	J. Philibert
1984	L.S. Birks
1985	E. Lifshin
1986	R.L. Myklebust
1987	O.C. Wells
1988	J.D. Brown
1989	J. Hillier
1990	T.E. Everhart
1997	D.B. Williams
1998	F.H. Schamber
1999	R.A. Sareen
2000	R.F. Egerton
2001	P.E. Batson
2002	K. Keil
2003	P.E. Russell
2004	J.T. Armstrong
2005	G. Slodzian
2006	B.J. Griffin
2007	R.D. Leapman
2008	T. F. Kelly
2009	J.R. Michael
2010	J.J. Donovan
2011	P.J. Statham
2012	N.J. Zaluzec
2013	P. Echlin
2014	H.L. Fraser
2015	M.R. Keenan
2016	M. Jercinovic
2017	Michael K. Miller

PRESIDENTIAL SERVICE AWARD (2018)

Vernon Robertson, JEOL

Vernon Robertson has been with JEOL USA for over 32 years and was appointed EPMA/ Surface Analysis Product Manager in early 2016 and will continue as SEM Technical Sales Manager, providing in-house and in the field, technical product support and customer applications support. Vern served as the senior SEM Applications Specialist at JEOL beginning in 1986. He was appointed National Laboratory Manager in 2004, and FEG SEM Product Manager in 2005. Vern received his B.Sc. in Geology with honors from the University of New Hampshire. His prior industrial experience included eight years of consulting in an independent testing lab specializing in industrial and environmental problem solving, with responsibilities including polarized light optical microscopy, and atomic emission and absorption spectroscopy SEM with EDS/ WDS and x-Ray diffraction. Vern was a recent member of the MAS (Microanalysis Society) Council serving as the Corporate Liaison.

PREVIOUS AWARDEES

1977	P. Lublin
1978	D.R. Beaman
1979	M.A. Giles
1980	A.A. Chodos
1981	R.L. Myklebust
1982	J. Doyle
1983	D.E. Newbury
1984	J.I. Goldstein
1985	M.C. Finn
1986	V. Shull
1987	D.C. Joy
1988	C.G. Cleaver
1989	W.F. Chambers
1990	C.E. Fiori
1991	T.G. Huber
1992	E.S. Etz
1993	H.A. Freeman
1994	J.L. Worrall
1995	R.W. Linton
1996	P. F. Hlava
1997	J.A. Small
1998	J.J. McCarthy
1999	T.G. Huber
2000	R.B. Marinenko
2001	C.E. Lyman
2002	J.F. Mansfield
2003	I.H. Musselman
2004	J.R. Michael
2005	G.P. Meeker
2006	H.A. Freeman
2007	P.K. Carpenter
2008	L.M. Ross
2009	V. Woodward
2010	S.A. Wight
2011	D.T. Kremser
2012	C. Johnson
2013	J.J. McGee
2014	I.M. Anderson
2015	S. McKernan
2016	H. Lowers
2017	Daniel Kremser

MAS Outstanding Paper Awards for 2017

MAS OUTSTANDING PAPER AWARDS (2017)

These awards are presented annually to the authors of outstanding papers from the previous annual meeting in each of four categories.

RAYMOND CASTAING – BEST STUDENT PAPER AWARD:

Characterizing the Effectiveness of Atomic Layer Deposited Coatings for the Prevention of Glass Disease

Miriam Hiebert, University of Maryland

V.G. MACRES – BEST INSTRUMENTATION/SOFTWARE PAPER AWARD:

Using Scanning Transmission X-ray Microscopy to Reveal the Origin of Lithium Compositional Spatiodynamics in Battery Materials

Daan Hein Alsem, Hummingbird Scientific, Inc.

L.S. BIRKS – BEST CONTRIBUTED PAPER AWARD:

Numerical Modeling of Specimen Geometry for Quantitative Multiple Detector EDS

Weizong Xu, North Carolina State University

V.E. COSSLETT – BEST INVITED PAPER AWARD:

Recent Advances of the Open Source MULTEM Program to Provide Accurate and Fast Electron Microscopy Simulations

Ivan Pedro Lobato Hoyos, EMAT, University of Antwerp, Belgium