2019 – 2020


Dr. Etta Pisano, M.D., FACR  (Beth Israel Deaconess Medical Center)  The Tomosynthesis Mammographic Imaging Screening Trial (TMIST) – A Bridge to Personalized Breast Cancer Screening.  October 16, 2019.


Andrés Muñoz-Jaramillo  (Southwest Research Institute)  How the Hemispheric Polar Field Reversal Sets the Timing and Shape of the Solar Cycle.  October 9, 2019.


2018 – 2019

Mojie Crigler  (END Fund)  Under the Big Tree: Extraordinary Stories From the Movement to End Neglected Tropical Diseases.  September 27, 2019.

CAPT Mercedes Benitez-McCrney, Dr.HSc, MA CCC-SLP  (Chief Professional Officer - Chief Therapist Officer, United States Public Health Service)  “Puentes Y Verjas” – Hispanic Health.  September 20, 2019.


Muhammad Fraser-Rahim  (Quilliam International)  Alternative Narratives to Violent Extremism: Case Study Examples on Rehabilitation in the US and Overseas.  September 4, 2019.

Jeffrey Kosseff (U.S. Naval Academy) *The Twenty-Six Words That Created the Internet.* August 23, 2019.

Ernie Snowden (U.S. Navy (ret.)) *Winged Brothers: Naval Aviation as Lived by Ernest and Macon Snowden.* August 16, 2019.

Mr. Douglas Loverro (Deputy Assistant Secretary of Defense, Space Policy (Ret.)) *The History of Space in National Security.* August 5, 2019.


John Astin (Theatre Program Director, JHU Homewood) *Knowledge and Wisdom.* June 14, 2019.

Charles F. Delwiche (Univ. of Maryland College Park) *Social Diversity in Humans and Biological Diversity in Algae: Implications for Resilience of Communities.* June 7, 2019.


Sally Mott Freeman (Author) *The Jersey Brothers: A Missing Naval Officer in the Pacific and His Family’s Quest to Bring Him Home.* May 17, 2019.


Joseph Blau (Naval Postgraduate School) *Measurements and Analysis of Ship-Induced Optical Turbulence on an Arleigh Burke Class Destroyer.* April 26, 2019.

Jeff Suzuki (Brooklyn College) *Patently Mathematical, or How I Lost a Billion Dollars in My Spare Time.* April 19, 2019.

Dr. John P. Hussman (Hussman Institute for Autism) *The Neurobiology of Autism and Implications for Presuming Competence.* April 10, 2019.


Capt. James Howe (U.S. Coast Guard (ret.)) *Securing the Border: Lessons Learned From the Maritime War on Drugs.* March 15, 2019.


The Honorable Catherine Pugh (Mayor of Baltimore) *Black History Month Keynote Address.* February 11, 2019.

Lester Spence (Johns Hopkins University) *A Realist Afrofuturist Account of Geopolitical Change.* February 8, 2019.

Peter W Singer (New America) *LikeWar: The Weaponization of Social Media.* February 1, 2019.

John O’Hara (NSA (Ret.)) *Space Age Intelligence ... Cold War to Hot War.* January 25, 2019.


**Ashley Ater Kranov** (School of Electrical Engineering and Computer Science, Washington State University and President, Global Professional Skills Assessment) *What Can the US Learn From Women’s Decisions to Pursue and Persist in Engineering in Diverse Predominantly Muslim Settings?* November 16, 2018.


**Dale F. Gray** (International Monetary Fund (retired)) *Using Tools From Physics, Feynman, and Finance to Model Macrofinancial Risks in Economies.* November 2, 2018.


**Harlan Ullman** (CNIGuard Ltd. and The Killowen Group) *Anatomy of Success: Why a Brains-Based Approach to Strategic Thinking Can Win Wars.* October 19, 2018.

**Stephen A. Bourque** (School of Advanced Military Studies, Fort Leavenworth) *Challenging Traditional Narratives: Writing Beyond the Beach.* October 16, 2018.


**Yarieska M. Collado-Vega** (NASA Goddard Space Flight Center) *Space Weather Research and Forecasting Capabilities at the NASA Community Coordinated Modeling Center (CCMC).* October 5, 2018.

**2017 – 2018**


**Jeff Hawkins** (Numenta Inc.) *Location, Location, Location: A Framework for Intelligence and Cortical Computation.* September 21, 2018.

**Scott Hoscharr and Beau Backus** (Middle Atlantic Area Frequency Coordination Office and NOAA National Environmental Satellite, Data, & Information Service) *Defense of the Electro-Magnetic Spectrum.* September 14, 2018.


**David Priess** (Author and Commentator) *The President’s Book of Secrets.* August 24, 2018.

**Dennis Conti** (Chair, AAVSO Exoplanet Section) *Amateur Astronomer Participation in the TESS Exoplanet Mission.* August 17, 2018.
Captain Drake Brewster (U.S. Army)  
July 13, 2018.

Stephen Phillips (JHU/APL)  
*Operation Earnest Will.*  
June 29, 2018.

David Taubenheim (JHU/APL)  
(Repeat Presentation)  
*Can You Hear Me Now? Advances in Audio Collection Technology, Machine Learning, and Subterfuge (SECRET Clearance Required).*  
June 27, 2018.

Trent Hone (Consultant)  
June 22, 2018.

Taylor Baldwin Kiland (Author)  
*Lessons From the Hanoi Hilton.*  

David Brin (Author and Futurist)  
*Opportunities, Dangers and Destiny in the Solar System ... and Beyond.*  
June 8, 2018.

David Taubenheim (JHU/APL)  
*Can You Hear Me Now? Advances in Audio Collection Technology, Machine Learning, and Subterfuge (SECRET Clearance Required).*  
June 1, 2018.

Elyse Zorn Karlin (Journalist, Museum Curator, and Art Historian)  
*Out of This World! Jewelry in the Space Age.*  

Marc Kolodner and Leo Morris (JHU/APL)  
May 18, 2018.

Marc Kolodner and Leo Morris (JHU/APL)  
May 11, 2018.

Mansur Hasib (Univ. of Maryland, Univ. College)  
*Cybersecurity Leadership: The Key to Organizational Success.*  
May 4, 2018.

George Bibel (Univ. of North Dakota)  
*Plane Crash: The Forensics of Aviation Disasters.*  
April 27, 2018.

Tom Glenn (Author)  
*The Battle of Dak To: The Cassandra Effect.*  
April 20, 2018.

Todd Harrison (Center for Strategic and International Studies (CSIS))  
*Escalation and Deterrence in the Second Space Age.*  
April 13, 2018.

Toni Hiley (CIA Museum Director)  
*The Art of Intelligence.*  
April 6, 2018.

Max Hardberger (Vessel Extractions LLC)  
*Under a False Flag: How Smugglers, Terrorists, and Thieves Use Vessels Under Flags of Convenience to Further and Conceal Illicit Activity.*  
March 30, 2018.

Chris Singer (NASA Deputy Chief Engineer (Ret.))  
*The Engine of Possibility: Accelerating Development.*  


Howard Eisner (Professor Emeritus, George Washington Univ.) Thinking Outside the Box, With Examples and APL-related Stories. February 9, 2018.


William Hogan  (Founder and Past Executive Director of California’s Innovation Hub for Defense, Energy and Aerospace (iDEA Hub))  From Innovation to Actualization: A Perspective From Silicon Valley.  October 20, 2017.

John Krakauer  (Johns Hopkins School of Medicine)  What Are We Asking When We Ask How the Brain Works.  October 13, 2017.


2016 – 2017


Max Bergmann  (Senior Fellow, Center for American Progress)  Rethinking Russian Active Measures.  September 1, 2017.


Dean Hamer  (Scientist Emeritus, National Institutes of Health; Co-Producer and Director, “A Place in the Middle”)  Queer Science.  June 23, 2017.


Michael Bourke  (Chief, Behavioral Analysis Unit, United States Marshals Service)  *The Psychology Behind Child Sex Offenders.* May 12, 2017.


Freeman Hrabowski  (President, University of Maryland Baltimore County)  *Holding Fast to Dreams: Creating a Climate of Success for All Students.* February 24, 2017.


**Donald M. Goldstein** (Emeritus Professor, Univ. of Pittsburgh) *Pearl Harbor in the Perspective of 75 Years.* November 30, 2016.


**Bob Bailey** (Behavior by Bailey) *A Brief History and Some Applications of Terrestrial, Aerial, and Aquatic Trained Animal Behavior Systems.* November 4, 2016.


**James Ira Thorpe** (NASA Goddard Space Flight Center) *LISA Pathfinder and the Road to Space-Based Gravitational Wave Observatories.* October 7, 2016.

**2015 – 2016**


Jose C. Florez MD PhD (Massachusetts General Hospital) Clinical Translation of Genetic Predictors for Type 2 Diabetes. September 16, 2016.


Michael D. Griffin (Chairman and CEO, Schafer Corp.) Delta 180: Origins and Significance in Missile Defense and Beyond. September 8, 2016.


Charles Clark (Joint Quantum Institute, Univ. of Maryland and National Institute of Standards and Technology) How Quantum Mechanics Cracked the Nuclear Code. June 3, 2016.


William Jones  (Princeton University)  *The Universe as a Lab for Fundamental Physics: Results From Spider and Future Long-Duration Stratospheric Balloon Missions.*  April 1, 2016.


Kimberly Scott  (Arizona State University)  *Becoming Our Selves in This Digital Age.*  March 21, 2016.


Philip Mudd  (Consultant; Central Intelligence Agency Ret.)  *The HEAD Game: Become a High Efficiency Analytic Decision Maker.*  March 4, 2016.


LTG Vincent Stewart  (U.S. Marine Corps; Director, Defense Intelligence Agency)  *An Evolving Defense Intelligence Enterprise.*  February 5, 2016.


Harlan Ullman  (The Killowen Group)  *A Brains-Based Approach to Strategic Thinking.*  January 15, 2016.


Xuanhong Cheng and James C. M. Hwang  (Lehigh University)  *Broadband Electrical Detection of Individual Biological Cells.*  December 11, 2015.


David Goldstein  (Naval Research Laboratory)  *Acoustic Black Holes in the Laboratory.*  November 20, 2015.


Charles Neimeyer  (Author)  *War in the Chesapeake: The British Campaigns to Control the Bay, 1813-1814.*  October 26, 2015.

David McQueeny  (IBM Research)  *The IBM Global Technology Outlook.*  October 23, 2015.


Pablo Iglesias  (JHU ECE Cellular Signaling and Control Laboratory)  *Biased Excitable Networks: How Cells Direct Motion in Response to Gradients.*  October 2, 2015.

**2014 – 2015**


Joel S. Wit (U.S.-Korea Institute at JHU School of Advanced International Studies) Game Change on the Peninsula? Thinking About North Korea’s Nuclear Futures. April 24, 2015.


Robert Ehrlich (George Mason Univ.) The Hunt for the Tachyon. April 10, 2015.


John Steinbruner  (Director, Center for International and Security Studies at Maryland (CISSM))  *Anticipating Climate Change Mitigation.*  January 23, 2015.


Thomas Dolby Robertson  (JHU)  *The Road to MIDI Hell Is Paved With Great Inventions.*  January 5, 2015.

Steven L. Rolston  (Univ. of Maryland)  *Where Is My Quantum Computer?*  December 12, 2014.


Ben Shneiderman  (Univ. of Maryland)  *Information Visualization for Knowledge Discovery: Big Insights From Big Data.*  October 10, 2014.

2013 – 2014


Jeff J. S. Black (St. John’s College) *Privacy, Ancient and Modern.* January 8, 2014.


Jerry Buckley, Margo Tank, and Steve Bisbee (BuckleySandler LLC and eOriginal) *Electronic Signatures and Records: The Intersection of Law and Technology.* December 6, 2013.


2012 – 2013


Nergis Mavalvala (Massachusetts Inst. of Technology) *Beyond the Quantum Limit in Gravitational Wave Detectors.* June 28, 2013.


Vinton G. Cerf (Google) *Re-Inventing the Internet.* April 29, 2013.

Carey M. Lisse (JHU/APL) *Prospects for Life and Human Habitability Around Nearby Stars: Many Possible Homes for Our Elder (?) Race, but the Neighbors Are Likely Bacteria.* April 26, 2013.


Norman Friedman (Defense Analyst) *UAVs in Strike Warfare.* November 9, 2012.


2011 – 2012


Steven Chu  (Secretary of Energy, 1997 Nobel Prize for Physics)  *America’s Role in Meeting the Energy Challenge.*  June 1, 2012.


Scott M. Tyson  (Author)  *Pardon Me, but Your Paradoxes Are Showing!*  March 30, 2012.

Barbara Slavin  (Atlantic Council)  *What Should We Do About Iran?*  March 16, 2012.


Ayanna Howard  (Georgia Institute of Technology)  *SnoMotes: Robotic Scientific Explorers for Understanding Climate Change.*  February 17, 2012.


VADM Walter B. Massenburg (U.S. Navy Ret.; President, Association of Naval Aviation and Raytheon Integrated Defense Systems) *Centennial of Naval Aviation … the Next 100 Years?* October 14, 2011.

2010 – 2011

Carolina Cruz-Neira (Univ. of Louisiana at Lafayette) *A Digital Wonderland: Virtual Reality Applications for Everybody.* September 30, 2011.


LCDR Mike Touse (Naval Postgraduate School) *Design, Fabrication, and Characterization of a Micromechanical Directional Microphone.* June 10, 2011.

Larry Robinson (National Oceanic and Atmospheric Administration) *Role of NOAA After the BP Deepwater Horizon Oil Spill.* June 3, 2011.

Rama Chellappa (Univ. of Maryland) *Compressive Sensing for Computer Vision.* May 24, 2011.

David Harriman (Author) *Do Scientists Need Philosophy?* May 13, 2011.

David Alberts (Office of the Assistant Secretary of Defense (Networks and Information Integration) and DoD Chief Information Officer) *The Agility Imperative.* April 22, 2011.

Joe Rosen (George Washington Univ.) *Other Universes.* April 15, 2011.

Dennis McCarthy (U.S. Naval Observatory) *Evolution of Timekeeping.* April 8, 2011.

Peter Pronovost (Johns Hopkins Medical Institutions) *Safe Patients, Smart Hospitals.* April 1, 2011.


Bob Buus  (Former Bell Labs)  *The Forefathers of Radio.*  February 18, 2011.

Richard Danzig  (Former Secretary of the Navy)  *Bioterrorism: How Should We Assess the Risk, and How Should We Prepare for It?*  February 11, 2011.

Charles L. Bennett  (JHU Dept. of Physics and Astronomy)  *Big Bang for the Buck: Cosmology From WMAP.*  January 14, 2011.


Michael Greenberger  (Univ. of Maryland)  *Our Economic Insecurity and Its Relationship to the Overall Security of the Nation.*  November 12, 2010.


2009 – 2010


Stephen C. Schimpff  (Univ. of Maryland Medical Center)  *The Future of Medicine – Megatrends in Medical Science and in Healthcare Delivery.*  March 12, 2010.

Ronald Marcell  (Immigration and Customs Enforcement)  *Undercover Operations in Counter-Proliferation Investigations.*  March 5, 2010.


George F. Riley (Georgia Institute of Technology) *Network Simulation With NS3.* October 23, 2009.


2008 – 2009


Michael C. MacCracken (Climate Institute) *Climate Change – A Challenge We Must Address.* June 5, 2009.


George Helfrich (JHU/APL Ret.) *APL and the U.S. Navy in the Deserts of New Mexico.* April 24, 2009.


James C. M. Hwang (Lehigh Univ.) *RF MEMS Technology for Space Applications.* March 27, 2009.

Sudip Bose (Advocate Christ Medical Center) *On Call in Iraq*. March 6, 2009.


Robin Wright (Journalist) *The Future of the Middle East*. October 17, 2008.

2007 – 2008


Steven Benner  (Foundation for Applied Molecular Evolution)  Unconventional Forms of Life and Life Detection.  April 2, 2008.


George Bibel  (Univ. of North Dakota)  Beyond the Black Box: The Forensics of Airplane Crashes.  February 1, 2008.


Juan Maldacena  (Institute for Advanced Study)  *QCD, Strings, and Black Holes: A Duality Between Gravity and Field Theory.*  October 5, 2007.

**2006 – 2007**


William Dunham  (Muhlenberg College)  *A Tribute to Euler.*  June 1, 2007.

Aravinda Chakravarti  (JHU School of Medicine)  *Genes for Common, Chronic Diseases.*  May 18, 2007.


Greg Jackson  (Univ. of Maryland, College Park)  *Solid Oxide Fuel Cells: Challenges for Applications Beyond Hydrogen.*  April 27, 2007.


Anna Escobedo Cabral  (U.S. Treasurer)  *Hispanic Heritage Month Colloquium.* October 11, 2006.

2005 – 2006


Nathaniel Fick  (Former Captain, U.S. Marine Corps)  The Wars in Afghanistan and Iraq: A Junior Officer’s Perspective on What We’ve Learned and Where We’re Going.  May 12, 2006.

Barry Rubin  (Global Research in International Affairs Center)  The Arab Struggle for Democracy in the Middle East.  May 5, 2006.


Woodrow Whitlow Jr.  (Director, NASA Glenn Research Center)  Breakthrough Technologies That Enable Space Exploration.  February 17, 2006.


Charles Nicholas  (Univ. of Maryland, Baltimore County)  Who Wrote This Document?  December 9, 2005.


Kay Jamison  (JHU School of Medicine)  Scientific Exuberance.  October 21, 2005.


2004 – 2005


Norman Polmar  (Analyst, Consultant, and Author)  Surprise! U.S. And Western Intelligence and Warning Failures During the Cold War.  May 13, 2005.


Ashley Tellis  (Carnegie Endowment for International Peace)  U.S.-India Strategic Relations.  April 1, 2005.


Michael Scheuer (Former Central Intelligence Agency) They Still Don’t Get It: The Danger of Ignoring Reality in the War on Terrorism. January 20, 2005.


2003 – 2004


John T. Emmert (George Mason Univ. and Naval Research Laboratory) *Climate Change at the Edge of the Atmosphere: Evidence of Long-Term Thinning.* April 16, 2004.


Ellis Barksdale (Barksdale Solutions) *E3 = Egypt, Engineering, and Education.* February 6, 2004.


**2002 – 2003**


George Friedman (Strategic Forecasting, Inc.)  *The Iraq Campaign: An Episode in a War.*  September 5, 2003.


Angela Stent (Georgetown Univ.)  *U.S.-Russian Relations After the Iraq War.*  May 2, 2003.


2001 – 2002


Christopher J. Lobb (Univ. of Maryland) *Smaller, Faster, Cheaper: From Transistors to Artificial Microstructures.* October 12, 2001.


*2000 – 2001*


Virginia L. Trimble  (Univ. of Maryland, College Park)  *Astrophysics Faces the Millennium.*  November 10, 2000.
Richard J. Foch  (Naval Research Laboratory)  

Stephen G. Brush  (Univ. of Maryland, College Park)  
Why Was Relativity Accepted?  October 27, 2000.

Donald G. Mitchell  (JHU/APL)  

Daniel S. Goldin  (Director, NASA)  

1999 – 2000

Robert Skinner Jr.  (Transportation Research Board)  

James Mayfield  (JHU/APL)  

Claude R. Canizares  (Massachusetts Inst. of Technology)  
First Results From the Chandra X-Ray Observatory.  May 19, 2000.

James W. Head  (Brown Univ.)  

Frank L. Fernandez  (Director, Defense Advanced Research Projects Agency)  

Shirley Ann Jackson  (President, Rensselaer Polytechnic Institute)  

RADM Rodney P. Rempt and RADM Michael G. Mullen  (U.S. Navy)  

C. Lee Giles  (NEC Research Institute)  

John D. Anderson  (National Air and Space Museum)  

Gregory Chaitin  (IBM T. J. Watson Research Center)  

Michael I. Miller  (JHU Center for Imaging Science)  

Frank E. McGarry  (Computer Sciences Corp.)  
Attaining Level 5 in the Capability Maturity Model.  February 25, 2000.

Richard T. Roca  (Director, JHU/APL)  


Thomas H. Guderjan  (St. Mary's Univ.)  *Blue Creek: An Ancient Maya City.*  December 10, 1999.


Steven Salzberg  (Inst. for Genomic Research)  *Annotating Whole Genomes.*  October 22, 1999.


1998 – 1999


Alan G. Robinson  (Univ. of Massachusetts)  *Corporate Creativity: World-Class Idea Systems.*  May 19, 1999.


Nitish Thakor (JHU Dept. of Biomedical Engineering) *Neuroengineering.* March 26, 1999.


Anthony Kossiakoff (Univ. of Chicago) *The Role of Molecular Adaptation in Cellular Communication.* February 19, 1999.


Ellen D. Williams (Univ. of Maryland) *Fluctuations in Materials Science.* January 22, 1999.


1997 – 1998


Richard Fish (Univ. of California, Berkeley) Designer Resins for Environmental Remediation. March 20, 1998.


Elizabeth Ofili (Morehouse School of Medicine) Telemedicine. February 27, 1998.


Arnold J. Mandell  (Emory Univ. and Florida Atlantic Univ.)  *Eigenfunction Styles: From Early Beethoven to Late Monk.*  February 6, 1998.


Raul Fainchtein  (JHU/APL)  *Think Small to Improve MRI.*  December 5, 1997.


R. Dean Astumian  (Univ. of Chicago)  *Brownian Motion and Biomolecular Motors.*  October 17, 1997.


**1996 – 1997**


George D. Rose (JHU Dept. of Biophysics and Biophysical Chemistry) Protein Folding. April 4, 1997.


Donald J. Williams (JHU/APL) Galileo’s Arrival at Jupiter: Early Results. December 6, 1996.

John S. Kauer (Tufts Univ. School of Medicine) Odor Encoding by the Olfactory System: From Biology to an Artificial Nose. November 22, 1996.


Sara A. Solla  (AT&T Research Laboratories)  *The Dynamics of Learning From Examples.* October 25, 1996.

Elliot R. McVeigh  (JHU Dept. of Biomedical Engineering)  *Magnetic Resonance Imaging (MRI) of the Heart.* October 11, 1996.


**1995 – 1996**


Joel M. Schnur  (Naval Research Laboratory)  *Lipid Tubules: Formation, Characterization, and Applications.* April 26, 1996.

Gerald L. Kulcinski  (Univ. of Wisconsin)  *Safe and Clean Energy From the Moon.* April 19, 1996.

Gary H. Posner  (JHU Dept. of Chemistry)  *Designer Drugs for Healthier Living.* April 12, 1996.

Richard S. Lindzen  (Massachusetts Inst. of Technology)  *Global Warming.* March 29, 1996.

Samuel A. Bowring  (Massachusetts Inst. of Technology)  *The Earth’s Early Evolution.* March 22, 1996.


Sylvester J. Gates Jr.  (Univ. of Maryland, College Park, Dept. of Physics)  *Superspace: Can You Really Get There From Here?* March 8, 1996.

Robert J. Cotter  (JHU Dept. of Pharmacology and Molecular Science)  *Smart Molecular Detectors for Biological Research.* March 1, 1996.

Donald A. Henderson  (JHU School of Public Health and Hygiene)  *New and Emerging Infections.* February 23, 1996.


Rama Chellappa (Univ. of Maryland, College Park) *Context-Based Exploitation of Aerial Images.* December 8, 1995.


Barbara Ryden (Ohio State Univ.) *The Fate of the Universe.* October 13, 1995.


1994 – 1995


E. Donald Elliott (Fried, Frank, Harris, Shriver, and Jacobson) *Rethinking the Role of Science in Risk Evaluation.* May 19, 1995.


Michael F. Summers (Univ. of Maryland, Baltimore County) *Structure of HIV-1 Proteins by Nuclear Magnetic Resonance.* April 21, 1995.


Adam Frederick Falk (JHU Dept. of Physics and Astronomy) *The Beautiful Bottom Quark.* March 17, 1995.


Leon Cohen  (Hunter College and City Univ. of New York)  *Time-Frequency-Scale Description of Signals.*  January 6, 1995.


Azriel Rosenfeld  (Univ. of Maryland, College Park)  *Perspectives on Computer Vision.*  December 9, 1994.


James S. Langer  (Univ. of California, Santa Barbara)  *Dynamics of Earthquakes and Fracture.*  October 21, 1994.

Frederick C. Wellstood  (Univ. of Maryland, College Park)  *Magnetic Microscopy Using Superconducting Sensors.*  October 14, 1994.


1993 – 1994


Donald M. Eigler  (IBM Almaden Research Center)  *Quantum Corrals.*  May 6, 1994.


Lawrence Washington (Univ. of Maryland, College Park) *Fermat’s Last Theorem.* February 25, 1994.


Catherine C. Fenselau (Univ. of Maryland, Baltimore County) *Biological Applications of Mass Spectrometry.* January 21, 1994.


Joseph Weber (Univ. of Maryland, College Park) *New Approaches to Neutrino Detection.* December 3, 1993.


1992 – 1993


Michael W. Geis (MIT Lincoln Laboratory) *Thin-Film Diamond Devices and Diamond Transistors.* March 26, 1993.


Arthur F. Davidsen (Johns Hopkins Univ.) *Scientific Results From the Hopkins Ultraviolet Telescope.* March 12, 1993.


John M. Logsdon (George Washington Univ.) *The Outlook for the Space Program in the Clinton Administration.* February 19, 1993.


G. Richard Garritson, J. T. Stadter, John J. Wozniak, Paul J. Waltrup, and F. G. Arcella  (JHU/APL)  *Aeronautics Department: From Bumblebee to the Twenty-First Century; Engineering Programs in the Aero Department; Applications of Fluid Dynamics; From COBRA to NASP – 48 Years of Ramjet Engine Development at APL; Meeting New Opportunities.*  October 9, 1992.

Noel C. MacDonald  (Cornell Univ.)  *Nanomechanisms for Transporting Atoms, Molecules, and Other Small Objects.*  October 2, 1992.

1991 – 1992


D. M. Pardoll  (Johns Hopkins Univ.)  *Molecular Engineering of the Anti-Tumor Immune Response.*  June 12, 1992.


James W. Head III  (Brown Univ.)  *Venus Volcanism: Recent Results From Magellan.*  May 8, 1992.

S. Fred Singer  (Univ. of Virginia)  *Are Human Activities Affecting the Climate?*  May 1, 1992.


Gerald Cook (George Mason Univ.) *Two Topics in Robotics: Kinematic Redundancy and Uncertain Environments.* January 3, 1992.


Fereydoon F. Family  (Emory Univ.)  *Dynamics of Fractal Surfaces.* October 25, 1991.


**1990 – 1991**


Timothy A. Fischell  (Stanford Univ.)  *Advances in the Treatment and Understanding of Coronary Artery Disease.* May 24, 1991.


Robert Costanza (Univ. of Maryland Chesapeake Biological Laboratory) *Ecological Economics.* March 22, 1991.


Michael E. Prise (AT&T Bell Laboratories) *Optical Computation Using SEEDs (Self-Electro-Optic Effect Devices).* February 8, 1991.


Guy M. McKhann (Johns Hopkins Univ.) *Approaches to the Neurobiology of Language.* November 30, 1990.


Bassam Z. Shakhashiri (Univ. of Wisconsin) *Communicating Science.* November 9, 1990.


1989 – 1990


Salvatore R. DiNardi  (Univ. of Massachusetts, Amherst)  Indoor Air Quality.  May 4, 1990.


Anthony R. Eastham  (Queen’s Univ., Canada)  Magnetically Levitated Trains.  April 6, 1990.


Bruce A. Barnett  (Johns Hopkins Univ.)  *New Results From the Stanford Linear Collider Z⁰ Experiment: A Limit on the Number of Neutrino Types*.  December 1, 1989.


1988 – 1989


Farouk El-Baz (Boston Univ.)  *In Search of Pharaoh’s Boat.* May 26, 1989.


David Emin (Sandia National Laboratories)  *Large Bipolarons and High-Temperature Superconductivity.* May 5, 1989.


Paul S. Miller (Johns Hopkins Univ.)  *Potential Therapeutic Applications for Anti-Sense Nucleic Acid Analogs.* April 7, 1989.


Julian H. Krolik (Johns Hopkins Univ.)  *Problems in the Formation of the Cosmic Microwave Background.* March 24, 1989.


Eugene N. Parker (Univ. of Chicago)  *Do We Really Understand Our Nearest Star – The Sun?* February 24, 1989.

Arthur W. Sleight (DuPont Co. and Univ. of California, Santa Barbara)  *The Chemist’s View of High Temperature Superconductivity.* February 17, 1989.


Jordan A. Goodman (Univ. of Maryland)  *The Anomalous Muon Content of Air Showers From Hercules X-1.* January 27, 1989.


Richard S. Muller (Univ. of California, Berkeley)  *New Opportunities With Microdynamic Systems.* December 2, 1988.


Abner Shimony (Boston Univ.)  *Hidden Variables and Bell’s Theorem: Theory and Experiment.* November 4, 1988.


**1987 – 1988**


Harold A. McAlister (Georgia State Univ.)  *Optical High-Resolution Astronomy.* May 13, 1988.


**Douglas G. Mose** (George Mason Univ.) *Indoor Radon Problem Areas in Maryland and Virginia.* April 22, 1988.


**Frank Brody and John Sokich** (National Meteorological Center) *Heavy Snow Forecasting.* January 22, 1988.


1986 – 1987


Christopher F. D’Elia  (Univ. of Maryland)  Nutrient Enrichment and the Chesapeake Bay.  November 7, 1986.


Paul J. Steinhardt  (Univ. of Pennsylvania)  *Quasicrystals.*  October 17, 1986.


1985 – 1986


Colin J. Pennycuick  (Univ. of Miami)  *Animal Locomotion on Earth and Other Planets.*  June 6, 1986.


Lawrence A. Soderblom  (U.S. Geological Survey)  *Uranus Through the Eyes of Voyager 2.*  May 9, 1986.

Harold C. Deutsch  (U.S. Army War College Ret.)  *Did ULTRA and MAGIC Win World War II?*  May 2, 1986.


Paul A. Bottomley  (General Electric Research Laboratory)  *Localized NMR Spectroscopy in Man.*  April 11, 1986.

Jerome B. Wiesner  (Massachusetts Inst. of Technology)  *Enhancing the Man/Machine Interface: MIT’s Media Technology Laboratory.*  April 4, 1986.


Robert Frosch  (General Motors Research Laboratories)  An Industrial Laboratory.  January 10, 1986.


Fereydoon F. Family  (Emory Univ. and Massachusetts Inst. of Technology)  Fractals in Aggregation Phenomena.  October 18, 1985.


1984 – 1985


**Linn F. Mollenauer** (AT&T Bell Laboratories)  *Solitons in Optical Fibers and the Soliton Laser.*  April 26, 1985.


1983 – 1984


W. Peter Trower  (Virginia Polytechnic Inst. and State Univ.)  *Free Fractional Charge: The Evidence and the Consequences.*  May 18, 1984.


Richard F. Mushotzky (NASA Goddard Space Flight Center) *Are There Giant Black Holes at the Center of Quasars and Other Active Galaxies?* March 9, 1984.

Peter M. Rentzepis (Bell Telephone Laboratories) *Picosecond Chemistry and Beyond.* March 2, 1984.


Eugenie Clark (Univ. of Maryland) *Sea Monsters and Cigar Sharks.* December 9, 1983.

John B. Carlson (Univ. of Maryland) *Venus in the Maya World.* December 2, 1983.

James Trefil (Univ. of Virginia) *The Creation of the Universe: New Thoughts on an Old Question.* November 18, 1983.


Azriel Rosenfeld (Univ. of Maryland) *Trends and Perspectives in Computer Vision.* October 21, 1983.


1982 – 1983


George Schmidt (Stevens Inst. of Technology) *Transitions From Order to Chaos.* May 20, 1983.


Stanley D. Shawhan (Univ. of Iowa) *Some Scientific Results From the Space Shuttle: Beam-Plasma Interactions.* April 29, 1983.


Donald B. McIntyre (Pomona College) *Computing Language as an Intellectual Tool: From Hieroglyphics to APL.* March 18, 1983.


Michael S. Turner  (Univ. of Chicago)  *Are Grand Unified Theories and Cosmology Good for Each Other?* October 29, 1982.


1981 – 1982


Arthur Ashkin (Bell Telephone Laboratories)  *Applications of Laser Radiation Pressure.*  May 21, 1982.

Jerry Lucas (TeleStrategies)  *Technology of Interactive Cable TV.*  May 14, 1982.


Lester B. Lave (Brookings Institution)  *Conflicting Objectives in Regulating the Automobile.*  April 16, 1982.

William F. Crowley (Harvard Univ.)  *Recent Advances in Reproductive Endocrinology.*  April 9, 1982.

Peter Franken (Univ. of Arizona)  *Optics at the Other Place.*  March 26, 1982.

Timothy P. Coffey (Naval Research Laboratory)  *New Insight Into the Structure and Instabilities of the Ionosphere.*  March 19, 1982.

Edward Ott (Univ. of Maryland)  *Strange Attractors.*  March 12, 1982.

S. Fred Singer (Univ. of Virginia)  *The Future of World Oil.*  March 5, 1982.


Donald S. Coffey (Johns Hopkins Univ.)  *The Structure and Function of the Nuclear Matrix in Biomedical Information Transfer.*  February 5, 1982.


Hans Goedicke (Johns Hopkins Univ.)  *Exodus: History and Science.* December 18, 1981.

Melvin Calvin (Univ. of California, 1961 Nobel Prize for Chemistry)  *Capturing the Sun’s Energy.* December 11, 1981.

Donald E. Polk (Office of Naval Research)  *Permanent Magnets: New Directions From Rapid Solidification.* December 4, 1981.


Scott S. Kirkpatrick (IBM Research)  *Spin Glasses.* November 6, 1981.


Stamatios M. Krimigis (JHU/APL)  *The Magnetosphere and Radiation Belts of Saturn: Results From the Voyager Encounters.* October 9, 1981.

Robert B. Pond (Johns Hopkins Univ.)  *The History and Promise of Rapid Solidification.* October 2, 1981.


David N. Schramm (Univ. of Chicago)  *Some Cosmological Consequences of Massive Neutrinos.* May 1, 1981.

William M. Fairbanks (Stanford Univ.)  *Observation of Fractional Charge 1/3 E on Matter.* April 24, 1981.

Solomon H. Snyder (JHU School of Medicine)  *Drugs, Neurotransmitters, and the Brain.* April 22, 1981.


Peter R. Greene  (Univ. of Nottingham)  *The Biodynamics of Running.*  March 27, 1981.


I. S. Sacks  (Carnegie Inst. of Washington)  *Slow Earthquakes.*  February 27, 1981.


Takeshi Egami  (Univ. of Pennsylvania)  *Defects in Amorphous Solids.*  February 6, 1981.


Bernard G. Campbell  (Univ. of California Los Angeles)  *The Evolution of Intelligence and Language.*  January 23, 1981.


Murray B. Sachs  (Johns Hopkins Univ.)  *The Neural Processing of Speech.*  January 9, 1981.

Frank J. Tipler  (Univ. of Texas)  *The Case for an Initial Cosmological Singularity.*  December 19, 1980.


Jerome D. Frank  (Johns Hopkins Univ.)  *Psychological Aspects of the Nuclear Arms Race.*  October 31, 1980.

Tepilit Ole Saitoti  (Author)  *Maasai: The Land and the People, and the National Geographic Society Film “Man of the Serengeti.”*  October 24, 1980.


1979 – 1980

Myron Genel  (Yale Univ.)  *Treatment of Diabetes and Other Diseases With External Pumps.*  September 26, 1980.


Michael Mirowski  (Sinai Hospital and Johns Hopkins Univ.)  *The Automatic Implantable Defibrillator From Inception to Clinical Application.*  May 2, 1980.


Frederick S. Billig  (JHU/APL)  *A Visit to China.*  April 11, 1980.


Aihud Pevsner  (Johns Hopkins Univ.)  *Quarks, Gluons ... a Walk Through the Garden of Elementary Particles.*  February 22, 1980.


Norman C. Pickering  (Southampton Hospital)  *The Physics of Violins.*  February 8, 1980.


Ernest A. Stern  (Univ. of Washington)  *Structure Determination by X-Ray Absorption (EXAFS).*  December 7, 1979.

James A. Yorke  (Univ. of Maryland)  *Chaotic Dynamics.*  November 30, 1979.


Richard B. Frankel  (Frances Bitter National Magnet Laboratory)  *A Navigational Compass in Magnetic Bacteria.*  October 26, 1979.


1978 – 1979


John R. Apel (NOAA Pacific Marine Environmental Lab) Scientific Results From SEASAT. April 6, 1979.


Ilya Prigogine (Univ. of Texas, Univ. of Brussells, and 1977 Nobel Prize for Chemistry) From Determinism to Probability. March 16, 1979.


Lester Machta (NOAA Air Resources Laboratory) *The Carbon Dioxide Problem.* January 26, 1979.


Martin A. Tolcott (Office of Naval Research) *Decision Aids for Command and Control.* January 12, 1979.


1977 – 1978


C. R. Johnson (Univ. of Maryland)  *The Impossibility of Group Decisions.* April 14, 1978.


Edward R. Harrison (Univ. of Massachusetts)  *Has the Sun a Companion Star?* January 6, 1978.


David Adler  (Massachusetts Inst. of Technology)  *Amorphous Semiconductors.*  November 4, 1977.


Helmut E. Landsberg  (Univ. of Maryland)  *Fluctuations of the Earth’s Climate.*  October 21, 1977.


**1976 – 1977**

Mark Goldberger  (Maryland Dept. of Health and Mental Hygiene)  *Tracking Down Legionnaires’ Disease.*  May 27, 1977.


I. B. C. Matheson  (Univ. of Georgia)  *The Role of Active Oxygen in Biological Oxidations.*  April 1, 1977.
Alex Dragt (Univ. of Maryland)  *Chaos Starting From F = ma.*  March 25, 1977.


Robert Zwanzig (Univ. of Maryland)  *Molecular Motion in Liquids.*  February 4, 1977.


Harry L. Swinney (City Univ. of New York)  *Transition to Turbulence in a Rotating Fluid.*  November 5, 1976.

Douglas Davis (Georgia Inst. of Technology)  *Atmospheric Measurements of Trace Gases via Aircraft.*  October 29, 1976.


1975 – 1976


C. W. Misner  (Univ. of Maryland) Black Holes and Spacetime Curvatures. May 14, 1976.


S. Fred Singer  (Univ. of Virginia) SSTs, Ozone, and Skin Cancer. March 19, 1976.


Theodore Tamir  (Polytechnic Inst. of New York) Beam and Waveguide Couplers. March 5, 1976.


Allan R. Hoffman  (Senate Committee for Commerce) A Scientist Joins the Congressional Staff. February 6, 1976.


Shyke A. Goldstein (Univ. of Maryland and Naval Research Laboratory) *Intense Electron and Ion Beams.* December 18, 1975.


George Clark (MIT Center for Space Research) *X-Rays From Gravitationally Collapsed Bodies Observed by SAS-C.* October 31, 1975.

Virginia L. Trimble (Univ. of Maryland, College Park) *Cosmology – Man’s Place in the Universe.* October 24, 1975.


1974 – 1975


Steven M. Stanley (Johns Hopkins Univ.) *The Pattern and Process of Large-Scale Evolution.* May 9, 1975.

Eugenie Clark (Univ. of Maryland) *Mexican “Sleeping” Sharks.* April 25, 1975.

Bernd T. Matthias (Univ. of California, San Diego) *Different Approaches to High Temperature Superconductivity.* April 18, 1975.

Paul E. Garber (Smithsonian Institution) *Kites and Boomerangs.* April 4, 1975.


C. F. Christ (Johns Hopkins Univ.) How to Create or Control Inflation. February 7, 1975.


H. E. Stanley (Massachusetts Inst. of Technology) How Does an Ion Get Through a Membrane? December 20, 1974.


K. W. Boer (Univ. of Delaware) Results From the Experimental Solar House (Solar I). October 31, 1974.


1973 – 1974


Nicolaas G. van Kampen (Univ. of Utrecht)  Nonlinear Transfer Equations. April 19, 1974.


E. W. Montroll (Univ. of Rochester)  Energy Transport in Photosynthetic Units. February 15, 1974.


E. S. Starkman (General Motors Corp. and Univ. of California)  *The Automobile and the Environment in an Era of Conflicting Demands.* November 30, 1973.


A. F. Aveni (Colgate Univ. and Univ. of South Florida)  *Astronomy and City Planning in Ancient Mexico.* November 2, 1973.


1972 – 1973


Betty Vetter (Scientific Manpower Commission)  *How Many Engineers (Or Scientists) Are Enough?* April 27, 1973.


Estelle Ramey (Georgetown Univ.) *Sex Differences From the Physiological Point of View: Facts and Fiction.* February 23, 1973.


Carrol M. Williams (Harvard Univ.) *New Approaches to the Selective Control of Insect Pests.* December 1, 1972.


Max V. Mathews (Bell Telephone Laboratories) *Computer Music and Other Unusual Computer Applications.* October 20, 1972.


1971 – 1972

M. Olson (Univ. of Maryland)  *The National Income and the Quality of Life*.  June 2, 1972.

Alexander Marshack (Harvard Univ.)  *Early Ice-Ace Intelligence as Revealed by Notation and Art*.  May 19, 1972.


Harold Schonhorn (Bell Telephone Laboratories)  *Surface Chemistry and Practical Adhesion*.  February 25, 1972.


Timothy Williams and Janet Williams  (State Univ. of New York)  Tracking Radar Studies of Bird Migrations.  December 17, 1971.


James S. Coleman  (Johns Hopkins Univ.)  Entry of the Young Into Adult Society.  November 19, 1971.


1970 – 1971

R. Conrad  (Medical Research Council)  Why We Talk to Ourselves When We Read.  May 21, 1971.


Athelstan F. Spilhaus  (American Association for the Advancement of Science)  Toward a Steady World.  April 9, 1971.


JHU Applied Physics Laboratory Colloquia


M. S. Eisenhower (Johns Hopkins Univ.) *To Insure Domestic Tranquility.* February 12, 1971.


Charles Blake (Federal Aviation Administration) *SST Program Rationale and Status.* December 11, 1970.


Joseph Schiebel (Georgetown Univ.) *The Soviet Scientist and Dissent.* November 27, 1970.


Arthur Squires (City Univ. of New York) *Clean Power From Coal.* October 30, 1970.

Walter Elsasser (Univ. of Maryland) *Solid Geophysics: From Sea Floor Spreading to Mountain Building.* October 16, 1970.

Lauren Rueger (JHU/APL) *Time and Frequency Standardization.* October 9, 1970.

1969 – 1970


Thomas Collins (National Accelerator Laboratory) *The Present Status and Future Plans of the National Accelerator Laboratory (N.A.L.)*. May 1, 1970.


L. Eugene Cronin (Univ. of Maryland) *The Chesapeake at Bay*. March 13, 1970.


R. C. Powell (U.S. Coast Guard) *The Tanker Manhattan Through the Northwest Passage*. December 5, 1969.


Carroll Alley  (Univ. of Maryland)  *The Apollo 11 Laser Ranging Retro-Reflection Experiment.*  
November 7, 1969.

Lawrence Goldmuntz  (U.S. Dept. of Transportation)  *A Proposed Solution for Air Traffic Control.*  
October 31, 1969.

Derrick Scovil  (Bell Telephone Laboratories)  *Magnetic Bubbles.*  October 24, 1969.

Edward C. T. Chao  (U.S. Geological Survey)  *Preliminary Results of Apollo 11 Lunar Samples.*  
October 17, 1969.


1968 – 1969

E. S. Starkman  (Univ. of California Berkeley)  *Control of Vehicular Emissions: Methods and Limitations.*  May 29, 1969.


Peter G. Fielding  (Booz Allen Research)  *The Status of Surface-Effect Vehicles.*  May 9, 1969.


Louis Flexner  (Univ. of Pennsylvania)  *Memory.*  April 18, 1969.

Martin A. Uman  (Westinghouse Research and Development)  *Lightning.*  April 11, 1969.

Hellmut Fritzsche  (Univ. of Chicago)  *Amorphous Semiconductors, New Physics, and a New Technology.*  March 28, 1969.


Reid A. Bryson  (Univ. of Wisconsin Center for Climatic Research)  *Effects of Atmospheric Pollution on Climate.*  March 7, 1969.

J. Lamar Worzel  (Columbia Univ. Lamont Geological Observatory)  *Are the Continents Drifting?*  
February 28, 1969.


John P. Craven  (Dept. of the Navy)  *Design of Small Submersibles.*  January 10, 1969.


Peter H. Rossi  (Johns Hopkins Univ.)  *Civil Disorders and the Politics of Discontent.*  November 22, 1968.


Abraham Robinson  (Yale Univ.)  *The Rebirth of the Infinitesimal.*  November 1, 1968.


1967 – 1968


Abel Wolman (Johns Hopkins Univ.) *Problems of the Environment.* April 12, 1968.


Sterling A. Colgate (New Mexico Inst. for Mining and Technology) *Supernova Interpretation of Quasars.* March 8, 1968.

K. Kurokawa (Bell Telephone Laboratories) *Applying the Gunn Effect to High-Speed Devices.* March 1, 1968.

Clarence M. Fowler (Los Alamos Scientific Laboratory) *Explosive Production of Multi-Megagauss Fields and Their Application.* February 16, 1968.


Richard J. Johns (Johns Hopkins Univ.) *Biomedical Engineering From Different Viewpoints.* January 19, 1968.


Nicolaas G. van Kampen (Univ. of Utrecht and Howard Univ.) *Does a Moving Body Appear Cool?* December 1, 1967.


1966 – 1967


Herman Kahn (Hudson Institute) *The Next Thirty-Three Years.* May 5, 1967.


Luigi Jacchia (Smithsonian Astrophysical Observatory) *Structure and Variations of the Upper Atmosphere.* April 21, 1967.


Allen B. Holmes (Harry Diamond Laboratory) *Fluidic Missile Control.* March 31, 1967.


F. Phillip Bowden  (Cambridge Univ.)  *Molecularly Flat Surfaces.*  November 11, 1966.


1965 – 1966


Robert Frosch  (Advanced Research Projects Administration)  *Seismic Arrays.*  March 11, 1966.

L. S. Kubie  (Sheppard-Pratt Hospital)  *Blocks to Creativity.*  March 4, 1966.


Edward Mason (Univ. of Maryland) *Oscillating Instabilities in Diffusing Gases.* February 4, 1966.

F. T. Cole (Lawrence Radiation Laboratory, Univ. of Calif.) *Design Study for the 200-Bev Accelerator.* January 25, 1966.


Charles F. Curtiss (Univ. of Wisconsin) *Transport Phenomena in Gases.* October 22, 1965.


1964 – 1965


Carl Kiess (Georgetown Univ.) *An Interpretation of Martian Phenomena.* April 9, 1965.

Donald Nordeen (General Motors Research Lab) *Stability of Automobiles.* April 2, 1965.


Herbert Friedman (Naval Research Laboratory) *X-Rays From Supernovae.* December 4, 1964.

Holbrook MacNeille (Case Inst. of Technology) *Experimental Films in Mathematics Teaching.* November 20, 1964.


Gordon Lill (National Science Foundation) *Project Mohole.* October 30, 1964.


1963 – 1964


Carl O. Bostrom (JHU/APL) Results of Particle Measurements From APL Satellites. May 22, 1964.


Jesse W. Beams (Univ. of Virginia) Some Experiments With High Constant-Speed Rotors. April 10, 1964.


Donald Pritchard (Johns Hopkins Univ.) Research and Education in Oceanography at the Johns Hopkins University. March 13, 1964.


Max A. Butterfield (U.S. Post Office) *Problems in Handling Large Volumes of Mail.* December 6, 1963.


1962 – 1963


J. Blewett (Brookhaven National Laboratory) *Design Studies for 300 to 1000 BeV Accelerators and the Future of Large Accelerators.* March 22, 1963.


Conway Snyder  (Jet Propulsion Laboratory)  Results From the Mariner II Spacecraft. February 14, 1963.


T. Reynolds  (St. Elizabeth’s Hospital)  A Research Program in a Mental Hospital. January 11, 1963.


1961 – 1962


W. B. Fowler  (Brookhaven National Laboratory)  *Bubble Chamber Physics at the Brookhaven National Laboratory.*  March 30, 1962.


S. Mason  (Massachusetts Inst. of Technology)  *Sensory Communication for the Blind.*  March 16, 1962.

J. Charney  (Massachusetts Inst. of Technology)  *Some Problems in the Dynamics of Planetary Atmospheres.*  March 9, 1962.


J. E. Kunzler  (Bell Telephone Laboratories)  *High-Field Superconductivity and Superconducting Magnets.*  January 12, 1962.


D. K. Wessel  (Syracuse Univ.)  *Some Recent Developments in Optical and Infrared Masers.*  December 8, 1961.


1960 – 1961


G. W. Stroke  (Massachusetts Inst. of Technology)  Recent Developments in Large Diffraction Gratings.  March 17, 1961.


V. W. Hughes (Yale Univ.) *Muonium.* November 18, 1960.


Hugh Odishaw (Space Science Board) *Some Aspects of the International Geophysical Year (IGY) of Current Interest.* October 14, 1960.

1959 – 1960


Eugene N. Parker (Univ. of Chicago) *The Solar Wind.* April 22, 1960.


W. Markowitz (U.S. Navy Observatory) *Precision Time and Frequency From VLF Transmissions.* April 15, 1960.


A. C. Kolb (Naval Research Laboratory) *Acceleration and Confinement of Dense Plasmas.* October 23, 1959.

D. R. Bates (Queen’s College, Belfast) *The Night Glow.* October 9, 1959.
1958 – 1959


S. B. Hendricks (Dept. of Agriculture) Physics and Biology, or the Physiology of Plants. May 8, 1959.


F. Rohrlach (Johns Hopkins Univ.) Negative Atomic Ions. February 27, 1959.


S. Fred Singer (Univ. of Maryland) The Origin of the Earth’s Radiation Belts. February 13, 1959.


J. B. Johnson (Thomas Edison Inc.) Edison’s Contribution to Thermionics. December 5, 1958.


J. R. Pierce (Bell Telephone Laboratories) *Use of Satellites for Transoceanic Communications.* October 10, 1958.