



**Directorate for Mathematical and Physical Sciences (MPS) Advisory Committee Meeting**  
**August 14-15, 2018 (all times EST)**  
**National Science Foundation,**  
**2415 Eisenhower Ave, Alexandria, VA**  
**Room E2030**

**AGENDA (final)**

**Tuesday, August 14, 2018**

- 12:30 – 12:45 PM Call to Order and Official Opening of the Meeting  
Anne Kinney, Assistant Director, MPS
- FACA briefing  
John Gillaspay, Staff Associate, Office of the Assistant Director, MPS
- Approval of prior meeting minutes  
Catherine Pilachowski, MPS Advisory Committee Chair
- 12:45-1:30 PM MPS Update  
Anne Kinney, Assistant Director, MPS
- 1:30 – 2:00 PM Big Ideas I: Quantum Leap  
Saul Gonzalez, Program Director for Elementary Particle Physics, MPS  
Sohi Rastegar, Senior Advisor, ENG  
Science hors d'oeuvre: *Materials for Quantum Leap – Select Examples*  
Tomasz Durakiewicz, Program Director for Condensed Matter Physics, MPS
- 2:00 – 2:30 PM Big Ideas I: Quantum Leap  
Discussion by the Committee  
Discussion leaders: P. Bucksbaum, R. Bryant, and D. Awschalom
- 2:30 – 2:45 PM Break
- 2:45 – 3:15 PM Big Ideas II: Windows on the Universe  
Jean Cottam Allen, acting Deputy Director, Division of Physics, MPS  
Joe Pesce, Program Director for the National Radio Astronomy Observatory, MPS  
Science hors d'oeuvre: *The Era of Multi-Messenger Astrophysics*, Pedro Marronetti & Jim Whitmore, Program Directors for Gravitational Physics and Particle Astrophysics, MPS
- 3:15 – 3:45 PM Big Ideas II: Windows on the Universe  
Discussion by the Committee  
Discussion leaders: L. Hillenbrand and C. Pilachowski
- 3:45 – 4:45 PM Prep for meeting with NSF Director and Chief Operating Officer  
Catherine Pilachowski, MPS Advisory Committee Chair
- 4:45 – 5:00 PM Closing remarks and adjourn for the day  
Anne Kinney, Assistant Director, MPS



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**Wednesday, August 15th, 2018**

- 8:30 – 8:35 AM Call to Order and official opening of the second day of the meeting  
Anne Kinney, Assistant Director, MPS
- FACA briefing  
John Gillaspay, Staff Associate, Office of the Assistant Director, MPS
- 8:35 – 8:50 AM NSF's Policy on Sexual Harassment  
Robert Cosgrove, Compliance Program Manager, NSF Office of Diversity and Inclusion  
and Discussion by the Committee
- 8:50 – 9:20 AM Big Ideas III: Harnessing the Data Revolution  
Juan Meza, Director, Division of Mathematical Sciences, MPS  
Chaitanya Baru, Senior Advisor for Data Science, CISE  
Science hors d'oeuvre: Daryl Hess, Program Director, Condensed Matter and Materials  
Theory, MPS
- 9:20 – 9:50 AM Big Ideas III: Harnessing the Data Revolution  
Discussion by the Committee  
Discussion leaders: S. Brenner, C. Hunt, and A. Millis
- 9:50 – 10:15 AM Break
- 10:15 – 10:45 AM Big Ideas IV: Understanding the Rules of Life  
Denise Caldwell, Director, Division of Physics, MPS  
Theresa Good, Deputy Director, Division of Molecular and Cellular Biosciences, BIO  
Deborah Olster, Senior Advisor, SBE  
Science hors d'oeuvre: *Can Zeroing In Shine Light on the Rules of Life?*  
Catalina Achim, Program Director for Chemistry of Life Processes, MPS
- 10:45 – 11:15 AM Big Ideas IV: Understanding the Rules of Life  
Discussion by the Committee  
Discussion leaders: J. Lewis and M. Sanford
- 11:15 – 11:45 AM Discussion about possible future subcommittee on Synthetic "Materials" Biology  
Linda Sapochak, Director, Division of Materials Research, MPS  
Richard Dickinson, Director, Division of Chemical, Bioengineering, Environmental, and  
Transport Systems, ENG



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- 11:45 – 12:00 noon Update on MPSAC Subcommittee on Physics Frontiers Centers Program (PFC)  
Jean Cottam Allen, acting Deputy Director, Division of Physics, MPS  
Donald Geesaman, Chair of the PFC Subcommittee, Argonne National Laboratory
- 12:00 – 1:30 PM Working lunch (take-out from cafeteria on 2nd floor)  
The NSF 2026 Idea Machine (creating the Big Ideas of the future)  
Lin He, acting Deputy Director, Chemistry Division, MPS
- 1:30 – 2:30 PM Discussion with NSF Director and Chief Operating Officer  
France A. Córdova, Director, NSF  
Fleming Crim, Chief Operating Officer, NSF
- 2:30 – 3:15 PM Recap/revisit items from above  
Anne Kinney, Assistant Director, MPS  
Catherine Pilachowski, MPS Advisory Committee Chair  
Discussion by the Committee
- 3:15 – 3:30 PM Break
- 3:30 – 3:45 PM Opportunity for public Q&A/Comments  
Catherine Pilachowski, MPS Advisory Committee Chair
- 3:45 – 4:00 PM Preparation/assignments for next meeting  
Catherine Pilachowski, MPS Advisory Committee Chair
- 4:00 PM Adjourn  
Anne Kinney, Assistant Director, MPS