DMS-MSII (Mathematical Sciences Innovation Incubator)

Goals

• To facilitate DMS co-review and co-funding of multi-disciplinary research collaborations involving mathematical scientists

• To provide leverage for investments of non-DMS NSF programs in projects that include mathematical scientists

• To provide a uniform mechanism through which collaborative research teams involving mathematical scientist can request DMS co-review
MSII (cont’d.)

• Catalyzes involvement of mathematical scientists in research areas where the mathematical sciences are not yet playing large roles

• Provides co-funding for awards managed by NSF programs other than DMS

• Emphasizes research areas of high national priority that would benefit from innovative developments in mathematics and statistics

• Responds to annual OSTP Science & Technology Priorities memo
Some MSII FY 2014 Featured Programs

• Designing Materials to Revolutionize and Engineer our Future (DMREF)
• Decadal and Regional Climate Prediction Using Earth System Models (EaSM)
• Secure and Trustworthy Cyberspace (SaTC)
• Core Techniques and Technologies for Advancing Big Data Science & Engineering (BIGDATA)
• Scalable Nanomanufacturing (SNM)
• Collaborative Research in Computational Neuroscience (CRCNS) [Optics & Photonics]
Criteria for MSII Support

• Likely impact of the involvement of mathematical scientists in the project
• The extent to which the mathematical sciences play an essential role in the proposed research project
• Novelty of the proposed collaboration or research topic
• Potential for impact of the research project in furthering mathematical sciences research

Please see MSII web page for details
Mathematical Sciences Innovation Incubator (MSII)

MSII Eligibility Criteria:

• Proposal submitted to non-DMS NSF program
• Project involves senior personnel who are mathematical scientists
• Project is in national high-priority research area (OSTP memo)
• Involvement of mathematical sciences in the research area is novel
• Involvement of mathematical scientists in the project is new (not ongoing, renewal, or follow-on)
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FY 2014 Pilot Activity Synopsis:

• Co-Review Requests:
  o 21 co-review requests received from community
  o 10 proposals identified for MSII co-review by NSF staff
  o 74 Big Data projects involved mathematical scientists

• Formal Funding Actions:
  o 9 awards co-funded
  o $1 million DMS investment matched by $1 million OMA

• Other DMS investments in MSII-eligible proposals:
  o 14 awards co-funded
  o $2.9 million DMS investment

• Grand Total DMS Investment: $3.9 million in 23 awards
• See award list available from MSII web page
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FY 2015 Activity:

• Update to MSII web page reflecting OSTP memo "Science and Technology Priorities for the FY 2015 Budget"

• Potential increased investments

• Encourage increased community involvement

• Idea for annual “study” of OSTP Priorities Memo

http://www.whitehouse.gov/administration/eop/ostp/rdbudgets