

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

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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:
 - 21 co-review requests received from community
 - 10 proposals identified for MSII co-review by NSF staff
 - 74 Big Data projects involved mathematical scientists
- Formal Funding Actions:
 - 9 awards co-funded
 - \$1 million DMS investment matched by \$1 million OMA
- Other DMS investments in MSII-eligible proposals:
 - 14 awards co-funded
 - \$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>

