



National Science Foundation  
4201 Wilson Boulevard  
Arlington, Virginia 22230

**Subject: Unsolicited proposals to the Division of Mathematical Sciences addressing cross-cutting topics in analysis, modeling, and computation of stochastic systems**

**Dear Colleague:**

In recent years, there has been a surge of research activities within the mathematical sciences community on analysis, modeling, and computation of inherently stochastic systems. Such studies are interdisciplinary with a broad range of applications, including models in biology, nanoscience, fluid mechanics, solid mechanics, atmospheric sciences, oceanography, finance, economics, and social sciences, etc. Unanswered and challenging questions arise from stochastic refinements of deterministic laws that are necessary and appropriate for uncertainty quantification, understanding of observed variabilities, and prediction.

The Division of Mathematical Sciences (DMS) of the Directorate for Mathematical and Physical Sciences (MPS) of the National Science Foundation (NSF) recognizes the needs and opportunities posed by this recent surge. Unsolicited research proposals to DMS (proposals submitted to disciplinary programs) addressing cross-cutting topics in one or more aspects of analysis, modeling, and computation of stochastic systems will be considered as a focused topic area. Such proposals will be managed by a team consisting of program directors in Applied Mathematics, Computational Mathematics, and Probability Programs within DMS. Proposals addressing this focused topic area should include the phrase, "AMC-SS:" at the beginning of the proposal title. In Fiscal 2005, proposals intended for this focused topic area that designate any of the above areas as primary programs may be submitted by the end of the first week of December – the usual target date for the Computational Mathematics Program. In Fiscal 2006 and subsequent years, such proposals should be submitted to the disciplinary programs at the usual target dates. The award size of grants in this focused topic area will be comparable to that of the disciplinary programs. Proposals requesting levels of effort that are typical for Focused Research Groups (FRG) activities are not appropriate for this focused topic area and should be submitted to the next round of the FRG competition.

Primary Contacts:

Dr. Wen Masters  
Division of Mathematical Sciences  
Directorate for Mathematical and Physical Sciences  
703-292-4871  
[wmasters@nsf.gov](mailto:wmasters@nsf.gov)

Dr. Thomas Russell  
Division of Mathematical Sciences  
Directorate for Mathematical and Physical Sciences  
703-292-4863  
[trussell@nsf.gov](mailto:trussell@nsf.gov)

Dr. John K. Shaw  
Division of Mathematical Sciences  
Directorate for Mathematical and Physical Sciences  
703-292-4859  
[kshaw@nsf.gov](mailto:kshaw@nsf.gov)

Sincerely,

William Rundell  
Division Director  
Division of Mathematical Sciences

[nsf.gov](https://www.nsf.gov)

[| About NSF](#) | [Funding](#) | [Publications](#) | [News & Media](#) | [Search](#) | [Site Map](#) | [Help](#)

---



**The National Science Foundation**  
4201 Wilson Boulevard, Arlington, Virginia 22230, USA  
Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 800-281-8749

[Policies](#)  
[Contact NSF](#)  
[Customize](#)