

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



March 7, 2016

Dear Colleague:

We are initiating a national search for the National Science Foundation's Assistant Director for Mathematical and Physical Sciences (MPS) and seek your assistance in the identification of candidates. Dr. Fleming Crim has served in this position, with distinction, since January 2013.

The Assistant Director, MPS, leads a directorate comprised of five divisions — Astronomical Sciences (AST), Chemistry (CHE), Materials Research (DMR), Mathematical Sciences (DMS), Physics (PHY) — and the Office of Multidisciplinary Activities (OMA). Enclosed is an information sheet that summarizes the directorate's activities and the responsibilities of the position, together with the criteria that will be used in the search.

We are very pleased to announce that Dr. Saul Perlmutter, Franklin W. and Karen Weber Dabby Professor at the University of California, Berkeley, will head the search committee. We seek your help in identifying candidates with the following qualifications: outstanding leadership; a deep sense of scholarship; a grasp of the issues facing the mathematical and physical sciences in the areas of research and education; experience developing and overseeing complex scientific facilities; and the ability to serve effectively as a key member of the NSF management team. Recommendations of individuals from any sector — academic, industry, or government — are welcome. The National Science Foundation is an equal opportunity employer committed to employing a highly qualified staff that reflects the diversity of our nation.

Please send your recommendations, including any supporting information that you can provide, to the AD/MPS Search Committee via e-mail (mpssrch@nsf.gov) or at the following address: National Science Foundation, Office of the Director, Suite 1205, 4201 Wilson Boulevard, Arlington, VA 22230. We would appreciate receiving your recommendations by May 13, 2016.

Your assistance in this very important task is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "France A. Córdoba". The signature is fluid and cursive, written over a light blue horizontal line.

France A. Córdoba
Director

Enclosures

**Search Committee Review Criteria
for the Assistant Director for Mathematical and Physical Sciences (AD/MPS), NSF**

We are seeking demonstrated evidence of:

Strategic Vision

- Working knowledge of the major current intellectual challenges and opportunities across the mathematical and physical sciences.
- Ability to think strategically and formulate integrated plans for research and education activities in the mathematical and physical sciences, especially at the interfaces of, and boundaries with, other disciplines.
- Ability to bring about strategic change, both within and outside the organization, to meet organizational goals. Includes the ability to establish an organizational vision and to implement it in a continuously changing environment.

Leadership, Direction, Representation

- Ability to lead people toward meeting the organization's vision, mission, and goals. Includes the ability to provide an inclusive workplace that fosters the development of others, facilitates cooperation and teamwork, and supports constructive resolution of conflicts. Ability to provide innovative and transformative leadership of people, reflective of NSF's organizational values.
- Ability to serve effectively as a member of NSF's senior management team, helping to develop consensus both within the MPS directorate and across the agency on policy and plans.
- Ability to plan, prioritize, and coordinate interagency and international research and education programs and to forge government-industry-university partnerships.
- Ability to manage an organization consisting of approximately 159 scientific and administrative professionals; ability to manage human, financial, and information resources strategically.
- Ability to communicate NSF policy and strategic plans to the external community, including the public, Congress, industry, and colleagues in other disciplines.
- Ability to meet organizational goals and customer expectations. Includes the ability to make decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

Commitment

- Commitment to transforming the frontiers of science and engineering, stimulating innovation and addressing societal needs through research and education, and excelling as a federal science agency goals of the NSF Strategic Plan and to the strategies for achieving these goals through developing intellectual capital, integrating research and education, and promoting partnerships and an ability to conceptualize the role of the mathematical and physical sciences in achieving those goals.
- Commitment to the appointment and development of a highly qualified staff that reflect the diversity of our Nation and to the equitable representation of underrepresented groups and institutions on advisory committees, in workshops, and proposal review panels.
- Commitment to equitable representation of underrepresented groups in the national enterprise.

Credibility within Research and Education Community

- Substantial research contributions and experience in academic, government and/or private national research and education endeavors as evidenced in publications, innovative leadership in research administration and/or professional leadership awards.
- Ability to build coalitions internally and with other Federal agencies, State and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.
- Demonstrated commitment to scholarship and significant scientific contributions to the mathematical and physical sciences.
- Broad understanding of universities and other institutions where research and education in the mathematical and physical sciences are conducted.
- Familiarity with the existing U.S. and international infrastructure that supports research and education.

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The National Science Foundation Directorate for Mathematical and Physical Sciences

The **National Science Foundation** (NSF) is an independent agency of the United States Government. Its vision is to enable the Nation's future through its strategic goals of transforming the frontiers of science and engineering, stimulating innovation and addressing societal needs through research and education, and excelling as a federal science agency. The Foundation seeks to realize these goals using five core values: scientific excellence, organizational excellence, learning, inclusiveness, and accountability for public benefit. NSF invests in research and education that will advance the frontiers of knowledge and establish the Nation as a leader in transformational science; cultivate a world-class, broadly inclusive science and engineering workforce and scientifically literate citizenry; build the Nation's research capacity with critical investments in advanced instruments, tools and facilities; and cultivate a capable and responsive organization that promotes excellence in science and engineering research and education.

The **Directorate for Mathematical and Physical Sciences** (MPS) is one of seven NSF directorates and is organized into five divisions — Astronomical Sciences (AST), Chemistry (CHE), Materials Research (DMR), Mathematical Sciences (DMS), Physics (PHY) — and the Office of Multidisciplinary Activities (OMA). The directorate employs approximately 159 staff members and administers a budget of approximately \$1.3 billion. MPS is responsible for a large part of the Foundation's major research facilities portfolio. The Directorate participates in 14 major facilities, including innovative instruments and large experiments ranging from the Laser Interferometer Gravitational Wave Observatory (LIGO), to the Daniel K. Inouye Solar Telescope (DKIST), to the Atacama Large Millimeter/Submillimeter Array (ALMA).

The **Division of Astronomical Sciences** (AST) supports frontier research in ground-based astronomy. The Division provides access to world-class research facilities, funds the development of new instrumentation and facilities, and encourages a broad understanding of the astronomical sciences among a diverse population of scientists, policy makers, educators, and the public.

The **Division of Chemistry** (CHE) seeks to transform chemical discovery and innovation, while advancing chemistry education and literacy. CHE encourages multi-disciplinary efforts that address short- and long-term societal challenges, while expanding the knowledge and vitality of the field.

The **Division of Materials Research** (DMR) enables new discoveries about the behavior of matter and materials. The Division supports the creation of new materials, new knowledge, and new instrumentation to investigate materials phenomena, while also preparing the next generation of materials researchers.

The **Division of Mathematical Sciences** (DMS) supports a wide range of projects that develop and explore the properties and applications of mathematical structures.

The **Division of Physics** (PHY) enables research across the entire field of experimental physics, from atomic, molecular and optical physics, to gravitational and particle physics, to astrophysics, to the physics of living systems.

The **Office of Multidisciplinary Activities** (OMA) facilitates and supports research and education opportunities that cross traditional boundaries. The Office works in partnership with the five MPS divisions to identify and support proposals that, because of their subject or scope, do not fit within traditional MPS research programs.

The **Assistant Director for Mathematical and Physical Sciences** (AD/MPS) serves as a key member of NSF's senior policy team and provides leadership and direction to MPS's programs and initiatives. The incumbent is responsible for planning and implementing programs, priorities, and policy within the framework of statutory and National Science Board authority. NSF seeks a candidate with outstanding leadership abilities; a demonstrated commitment to scholarship; a grasp of the issues and opportunities facing mathematical and physical sciences; and a commitment to the goals and strategies of the National Science Foundation.