

APS CONGRESSIONAL SCIENCE FELLOWSHIP 2016-2017

THE AMERICAN PHYSICAL SOCIETY is currently accepting applications for the Congressional Science Fellowship Program. Fellows serve one year on the staff of a senator, representative or congressional committee. They are afforded an opportunity to learn the legislative process and explore science policy issues from the lawmakers' perspective. In turn, Fellows have the opportunity to lend scientific and technical expertise to public policy issues.

QUALIFICATIONS include a PhD or equivalent in physics or a closely related field, a strong interest in science and technology policy and, ideally, some experience in applying scientific knowledge toward the solution of societal problems. Fellows are required to be members of the APS.

TERM OF APPOINTMENT is one year, beginning in September of 2016 with participation in a two week orientation sponsored by AAAS. Fellows have considerable choice in congressional assignments.

A STIPEND is offered in addition to allowances for relocation, in-service travel, and health insurance premiums.

APPLICATION should consist of a letter of intent of no more than 2-pages, a 2-page resume: with one additional page for publications, and three letters of reference. Please see the APS website (<http://www.aps.org/policy/fellowships/congressional.cfm>) for detailed information on materials required for applying and other information on the program.

**ALL APPLICATION
MATERIALS MUST BE
SUBMITTED ONLINE BY
CLOSE OF BUSINESS
ON JANUARY 15, 2016
(5:00 PM EST).**

books

physicists needed to understand the radiation reaction to shore up the initially shaky foundations of gravitational-wave theory. Things went downhill for decades after Albert Einstein's first paper on waves got the energy flux wrong by a factor of two; also, Einstein relied on an unexamined energy balance argument. In the future, accounting for the radiation-reaction force will be crucial for computing gravitational waveforms and conducting searches for them in the data of any descendant of *LISA* (*Laser Interferometer Space Antenna*), a proposed spaceborne gravitational-wave detector.

Chapter 13 closes the book with a self-contained summary of alternative theories of gravity. It updates Will's classic text, *Theory and Experiment in Gravitational Physics* (Cambridge University Press, 1981), by covering the current constraints and those soon to come with gravitational waves.

Various accessories enhance the main text. For example, the homework problems, which range from easy to worthy of a journal article, often feature the computation of a number relevant to a current experiment or observation. Nondistracting figures and tables illustrate key points. And text boxes form interesting asides, providing some history or extra calculation without overwhelming the main text.

Poisson and Will's *Gravity* is a great textbook for a special-topics graduate course after the introductory relativity course, a crucial study aid for anyone learning about astrophysical relativity and gravitational waves, and a lifelong reference for career researchers.

Benjamin Owen
Texas Tech University
Lubbock, Texas

new books

astronomy and astrophysics

Galactic and Intergalactic Magnetic Fields. U. Klein, A. Fletcher. Springer, 2015. \$129.00 (236 pp.). ISBN 978-3-319-08941-6

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New Insights from Recent Studies in Historical Astronomy: Following in the Footsteps of F. Richard Stephenson. W. Orchiston, D. A. Green, R. Strom, eds. Springer, 2015. \$259.00 (350 pp.). ISBN 978-3-319-07613-3

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computers and computational physics

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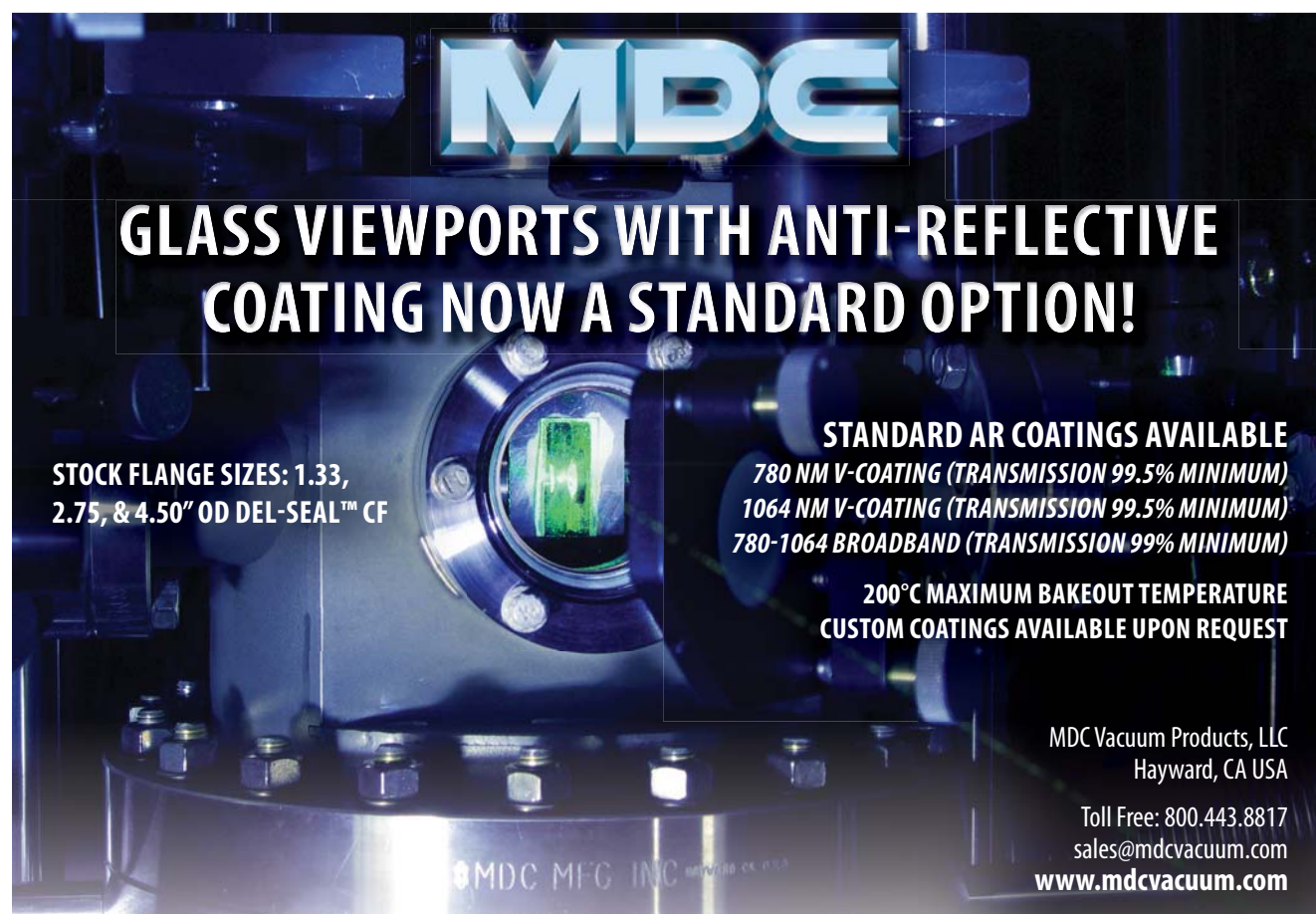
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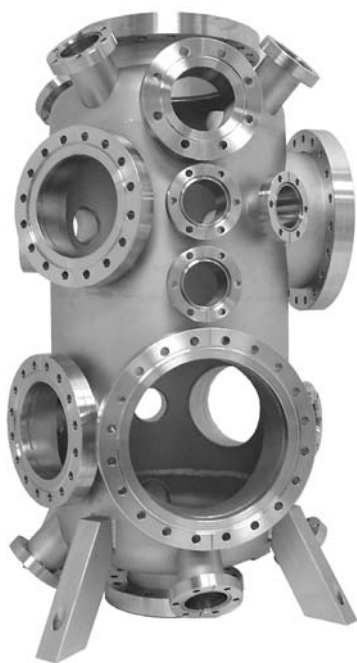
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