

FRANCES BAGENAL

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PERSONAL DATA

Born: November 4, 1954, Dorchester, England Naturalized US citizen (9/6/2001)

EDUCATION

1973-1976 University of Lancaster, BSc in Physics and Geophysics

1976-1981 Massachusetts Institute of Technology, Ph.D. in Earth and Planetary Sciences.

APPOINTMENTS SINCE 1990

1992- Research Associate of the Laboratory for Space and Atmospheric Physics

1999-2015 Professor, Department of Astrophysical and Planetary Sciences

1995-6, 1997-2001, 2005-6, 2009-10 Associate Chair, Department of Astrophysical and Planetary Sciences

1993-1999 Associate Professor, Department of Astrophysical and Planetary Sciences

1989-1993 Assistant Professor, APS Dept., University of Colorado, Boulder

AWARDS

2006 Fellow of the American Geophysical Union

1981, 1986, 1990, 1996, 1997, 1998, 1999, 2002, 2012, 2013 NASA Group Achievement Awards for contributions to the Voyager, Galileo, Deep Space 1, New Horizons, and Juno missions.

2010 Boulder Faculty Assembly's Excellence in Research Award

PROFESSIONAL ACTIVITIES AND SOCIETIES SINCE 2002

2009- 2010 Chair (acting), Planetary Science Subcommittee of the NASA Advisory Council

2004- 2008 Chair, NASA Outer Planets Assessment Group

2004 Chair, Report on Role of Solar and Space Physics in Exploration, Committee on Solar and Space Physics of NRC/SSB

2004- 2007 Committee Member of AAS' Div. of Planetary Sciences

2001 -2002 Member Solar and Space Physics Decadal Survey Committee for the NRC/NAS

RESEARCH

The main theme of my research has been the synthesis of data analysis and theory in the study of space plasmas. I have specialized in the fields of planetary magnetospheres and the solar corona. I have been involved in NASA missions to planetary objects including Voyager, Galileo, Deep Space 1, New Horizons and Juno.

RELEVANT RECENT PUBLICATIONS (Total 157 published papers since 1977)

Direct plasma measurements in the Io torus and inner magnetosphere of Jupiter, **F. Bagenal** & J.D. Sullivan, *J. Geophys. Res.* **86**, 8447, 1981

Empirical model of the Io plasma torus: I Voyager measurements, **F. Bagenal**, *J. Geophys. Res.*, **99**, 11043-11062, 1994

Comparative Planetary Environments, **F. Bagenal**, in *Heliophysics: Plasma Physics of the Local Cosmos*, C.J. Schrijver, G.L. Siscoe (eds), Cambridge University Press, pp 360-398, 2009

Solar wind interaction with Jupiter's magnetosphere, P.A. Delamere, **F. Bagenal**, *J. Geophys. Res.*, **115**, A10201, 2010

Mass and Energy Flow Through the Magnetospheres of Jupiter and Saturn, **Bagenal, F.**, P.A. Delamere, *J. Geophys. Res.*, **116**, A05209, 2011

Magnetospheric Science Objectives of the Juno Mission, **F. Bagenal**, et al. *Space Sci. Rev.*, 2014

Plasma conditions at Europa's orbit, **Bagenal**, et al., *Icarus*, **261**, 1-13, 2015

Survey of Galileo Plasma Observations 1 in Jupiter's Plasma Sheet, **F. Bagenal**, R. J. Wilson, S. Siler, W. Paterson, W. Kurth, *J. Geophys. Res.*, **121**, 2016

Io plasma torus ion composition: Voyager, Galileo, Cassini, Nerney, E., **Bagenal**, F., Steffl, A. (2017) *J. Geophys. Res.*, **122**, doi:10.1002/2016JA023306, 2017

Survey of Voyager Plasma Science Ions at Jupiter: I Analysis Method, **Bagenal**, F., L. P. Dougherty, K. M. Bodisch, J. D. Richardson, and J. M. Belcher *J. Geophys. Res.*, **122**, doi:[10.1002/2016JA023797](https://doi.org/10.1002/2016JA023797), 2017