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Related Experience Summary

Lecturer in mathematics, Columbia University

Founding member of the NASA/Stanford Joint Institute for Aeroacoustics

Co-Investigator of Astrobiology Institute Grant 2003-2008

Lecturer in aeroacoustics, Stanford University

Developed low dispersion finite difference algorithms for wave propagation, acoustics, flow stability, and chemical evolution studies 1990.

Employment History

1999-Present Ames Research Center, NASA, Space Sciences

1981-98 Chief, Fluid Mechanics Laboratory Branch

1971-99 Ames Research Center, NASA, Aeronautics

1969-71 National Research Council (NRC Associate)

Education

1969 Columbia, Eng. Sc. D. in Engineering Mechanics

1965 Columbia, New York City, M. S. in Engineering Mechanics

1964 Cooper Union, New York City, B. E. C. E.

Professional Societies

American Geophysical Union; AAS Division of Planetary Sciences; AIAA Associate Fellow

Awards and Honors

1998 Ames Honor Award for Excellence: Manager/Supervisor

1992 NASA Exceptional Service Medal

1987 Challenger Accident Investigation Award

1980 ASME/AIAA Structures and Material best paper award

1980-81 H. L. Dryden Fellowship at Stanford

Selected Relevant Publications

Davis, S., "Ice Formation in Radiated Accretion Disks," *ApJ*, 660, 1580 2007

Davis, S., "Hypervelocity Impact Flare Models", American Geophysical Union Fall Meeting, Dec. 11-15, 2006, San Francisco CA.

Davis, S., "A New Model for Water Vapor and Ice Abundance in a Protoplanetary Nebula," 38th Meeting of the AAS Division of Planetary Sciences, 8-13 Oct 2006, Pasadena, CA.

Davis, S., "Following the Water: the Evolution of Ice-forming Regions in the Early Solar Nebula" NAI 2006, NASA Astrobiology Institute Meeting, March 2006, Washington DC.

Davis, S., "Disk Hydrodynamics and Chemistry Models," NASA Astrobiology Institute Disk Chemistry Workshop, 23 October 2005, Waikoloa, Hawaii.

Davis, S., "The Surface Density Distribution in the Solar Nebula," *ApJ*, 627, L153-L155 2005.

Davis, S., "Ice Forming Regions during Evolution of the Solar Nebula," NAI 2005, NASA Astrobiology Institute Biennial Meeting, 10-14 April 2005, Boulder, CO

Davis, S., "Condensation Front Migration in the Protoplanetary Nebula," *ApJ*, 2005, 620, 994.

Davis, S., "The Condensation/Sublimation Front in the Solar Nebula," AGU 2004 Fall Meeting, Dec 13-17, 2004, San Francisco, CA

Richard, D. and Davis, S. S., "A Note on Transition, Turbulence Length Scales and Transport in Differentially Rotating Flows," *A&A*, *416*, 825-827, 2004.

Davis, S., "A Simplified Model for an Evolving Protoplanetary Nebula," *ApJ*, 592, 1193-1200, 2003.

Cuzzi, J., Davis, S., and Dobrovolskis, A., "Radial Drift, Evaporation, and Diffusion: Enhancement and Redistribution of Silicates, Water, and other Condensable in the Nebula," 35th AAS-DPS Meeting, Sept 1-6, 2003, Monterey CA
