
DENIS T. RICHARD - NASA AMES RESEARCH CENTER SAN JOSE STATE RESEARCH FOUNDATION

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Related Experience Summary

Numerical investigation of turbulence and transport mechanisms in Astrophysical disks; Turbulence modeling; Experimental investigation of turbulence in differentially rotating flows.

Employment History

04/2005-Present	Astrophysicist, SJSU Research Foundation, NASA ARC
11/2006-Present	Science Consultant, NASA ESMD Dust Management Program
01/2002-03/2005	Postdoctoral Associate, National Research Council Associate, NASA ARC

Education

2001	Ph.D., Doctorat, Astrophysics, Université Paris Diderot, Observatoire de Paris
1997	M.Sc., Diplôme d'Etudes Avancées, Astrophysics and Space Science, Université Paris Diderot, Ecole Normale Supérieure and Observatoire de Paris
1996	Maîtrise, Fundamental Physics, Université Paris Diderot, Ecole Normale Supérieure
1995	B.Sc., License, Physics, Université Paris Diderot, Ecole Normale Supérieure
1994	Dipl. d'Etudes Univ. Gén., Physical Sciences, Université Paris Diderot

Professional Societies

European Astronomical Society

Société Française d'Astronomie et d'Astrophysique

Awards and Honors

NRC Associateship, 2002-2004

PhD Scholarship, Ministère de l'Education Supérieure et de la Recherche, 1998-2001

MSc Scholarship, Ministère de l'Education Supérieure et de la Recherche, 1996-1997

Selected Relevant Publications

- Dubrulle, B.; Dauchot, O.; Daviaud, F.; Longaretti, P.-Y.; Richard, D.; Zahn, J.-P., 2005, "Stability and turbulent transport in Taylor-Couette flow from analysis of experimental data", *Physics of Fluids*, v.17-9, p.5103-5119.
- Dubrulle, B., Marié, L., Normand, Ch., Richard, D., Zahn, J.P., 2005, "An hydrodynamic shear instability in stratified disks", *Astronomy and Astrophysics*, v.429, p.1-13
- Richard, D. & Davis, S. 2004, "A note on transition, turbulent length scales and transport in differentially rotating flows", *Astronomy and Astrophysics*, v.416, p.825-827
- Richard, D. 2003, "On non-linear hydrodynamic instability and enhanced transport in differentially rotating flows", *Astronomy and Astrophysics*, v.408, p.409-414
- Richard, D. 2001, "Instabilités Hydrodynamiques dans les Ecoulements en Rotation Différentielle", Thèse de Doctorat, Université Paris Diderot.
- Hure, J.M., Richard, D. & Zahn, J.P. 2001, "Accretion discs models with the β -viscosity prescription derived from laboratory experiments", *Astronomy and Astrophysics*, v.367, p.1087-1094
- Richard, D. & Zahn, J.P. 1999, "Turbulence in differentially rotating flows. What can be learned from the Couette-Taylor experiment", *Astronomy and Astrophysics*, v.347, p.734-738
- Richard, D., "The Source of Turbulence in Astrophysical Disks: An Ill-posed Problem.", UCSC-Ames Workshop on Stellar and Planets Formation March 29, 2007.
- Richard, D. & Davis, S., "Chemical Evolution and Network Analysis in Protoplanetary Disks", 5-9 Dec. 2005, American Geophysical Union Fall Meeting, San Francisco.