CURRICULUM VITAE

Tristan, Yves, Nicolas GUILLOT

August 21, 2006

Date and place of birth: 11 January 1970 at Fontenay-aux-Roses (France) **Gender:** male

Nationality: French **Familial Situation:** 2 childs

Working address:
Observatoire de la Côte d'Azur
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Personal address:
12 rue Caïs de Pierlas
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Professional Experience:

1998–	Chargé de Recherche C.N.R.S., Observatoire de la Côte d'Azur
1996–1997	Research fellow, Meteorology Department, University of Reading, UK
1994–1996	Research associate, Lunar and Planetary Laboratory, University of Arizona, USA
1991–1994	PhD Student, Observatoire de la Côte d'Azur, Nice

Awards:

2006	Urey Prize of the *Division for Planetary Sciences* of the AAS
2006	Zeldovich medal of the *Committee on Space Research*(COSPAR)
2002	Bronze medal of the CNRS
1996–1997	Marie Curie Fellowship (Training and Mobility of Researchers Program of the European Community)
1994–1996	Fellowship of the European Space Agency

Education:

2003	*Habilitation à diriger des recherches* "Physics of Substellar Objects: Interiors, Atmospheres, Evolution", Université de Nice-Sophia Antipolis.
1994	PhD in Astrophysics "Internal structure of the giant planets", Université de Paris 7 / Observatoire de la Côte d'Azur (Supervisor: Pierre Morel)
1991	D.E.A. in Astrophysics and Space Technics, Université de Paris 7
1990	Maîtrise in Physics, Université de Marseille
1988	Deug A SSM in Maths-Physics, Université d'Avignon

Professional Societies:

1992–	Division for Planetary Sciences of the AAS
1998–	Société Française d'Astronomie et d'Astrophysique

Teaching Experience:

2000–	Yearly course in *Stellar Physics* (16h), Master Omega 2nd year, Université de Nice-Sophia Antipolis.
2001	31th Saas-Fee Advanced Course on *Physics of substellar objects: Interiors, atmospheres, evolution* (10h), (April 2001, Grimentz, Switzerland).
1999	EVISS summer school (4h) for Graduate and PhD students (Coimbra, Portugal)
1997	Goutelas summer school (3h) for PhD students (France)
1993–1994	Course in Numerical Analysis (96h) for 2nd year University Maths-Physics students, Nice University (France)

Research works: Phase separations in dense plasmas
Molecular opacities at high pressure
Internal structure and evolution of the giant planets
Condensation and convection in planetary atmospheres
Extra-solar giant planets and brown dwarfs: spectra, evolution, detectability
Circumstellar disks and planet formation

LIST OF PUBLICATIONS
August 21, 2006

Publications in Refereed Journals

[A.1] Guillot T., Gautier D., Chabrier G. & Mosser B. 1994. Are the giant planets fully convective? *Icarus* **112**, 337–353.

[A.2] Guillot T., Chabrier G., Morel P. & Gautier D. 1994. Non-adiabatic models of Jupiter and Saturn. *Icarus* **112**, 354–367.

[A.3] Mosser B., Gudkova T. & Guillot T. 1994. The influence of the troposphere on giant planets oscillations. *Astron. & Astrophys.* **291**, 1019–1026.

[A.4] Guillot T. & Morel P. 1995. CEPAM: a code for modeling the interiors of giant planets. *Astron. & Astrophys. Suppl.* **109**, 109–123.

[A.5] Gudkova T., Mosser B., Provost J., Chabrier G., Gautier D, & Guillot T. 1995. Seismological comparison of giant planets interior models. *Astron. & Astrophys.* **303**, 594–603.

[A.6] Guillot T., Chabrier G., Gautier D, & Morel P. 1995. Radiative transport and the evolution of Jupiter and Saturn. *Astrophys. J.* **450**, 463-472.

[A.7] Burrows A., Saumon D., Guillot T., Hubbard W.B. & Lunine J.I. 1995. Prospects for detection of extra-solar giant planets by next-generation telescopes. *Nature*, **375**, 299–301.

[A.8] Guillot T. 1995. Condensation of methane, ammonia and water and the inhibition of convection in giant planets. *Science* **269**, 1697–1699.

[A.9] Saumon D., Hubbard W.B., Burrows A., Guillot T., Lunine J.I. & Chabrier G. 1996. A theory of extra-solar giant planets. *Astrophys. J.*, **460**, 993–1018.

[A.10] Guillot T., Burrows A., Hubbard W.B., Lunine J.I., Saumon D. 1996. Giant planets at small orbital distances. *Astrophys. J. Letters* **459**, L35–38.

[A.11] Marley M.S., Saumon D., Guillot T., Freedman R.S., Hubbard W.B., Burrows A. & Lunine J.I. 1996. Atmospheric, evolutionary and spectral models of the brown dwarf Gliese 229 B. *Science* **272**, 1919–1921.

[A.12] Burrows A., Marley M.S., Hubbard W.B., Lunine J.I., Guillot T., Saumon D., Freedman R., Sudarsky D. & Sharp C. 1997. A nongray theory of extrasolar giant planets and brown dwarfs. *Astrophys. J.* **491**, 856–875.

[A.13] Guillot T., Gautier D. & Hubbard W.B. 1997. New constraints on the composition of Jupiter from Galileo measurements and interior models. *Icarus* **130**, 534–539.

[A.14] Trilling D., Benz W., Guillot T., Lunine J.I., Hubbard W.B. & Burrows A. 1998. Orbital evolution and migration of giant planets: modeling extrasolar planets. *Astrophys. J.* **500**, 428–439.

[A.15] Hubbard W.B., Guillot T., Marley M.S., Burrows A., Lunine J.I. & Saumon D. 1999. Comparative evolution of Jupiter and Saturn. *Plan. Space Sci.* **47**, 1175–1182.

[A.16] Guillot T. 1999. A comparison of the interiors of Jupiter and Saturn. *Plan. Space Sci.* **47**, 1183–1200.

[A.17] Guillot T. 1999. Review: Interiors of giant planets inside and outside the solar system. *Science* **286**, 72–77.

[A.18] Rauer H., Bockelée-Morvan D., Coustenis A., Guillot T. & Schneider J. 2000. Search for an exosphere around 51 Peg B with ISO. *Astron. Astrophys.* **355**, 573–580.

[A.19] Burrows A., Guillot T., Hubbard W.B., Marley M.S., Saumon D., Lunine J.I. & Sudarsky D. 2000. On the radii of close-in giant planets. *Astrophys. J. Lett.* **534**, L97–L100.

[A.20] Guillot T. & Showman A.P. 2002. Evolution of "51 Peg b-like" planets. *Astron. Astrophys.* **385**, 156–165.

[A.21] Showman A.P. & Guillot T. 2002. Atmospheric circulation and tides of "51 Peg b-like" planets. *Astron. Astrophys.* **385**, 166–180.

[A.22] Hueso R., Sanchez-Lavega A. & Guillot T. 2002. A model for large-scale convective storms in Jupiter. *JGR Planets* **107**, 2001JE001839.

[A.23] Hueso R. & Guillot T. 2003. Evolution of the protosolar nebula and formation of the giant planets. *Space Science Reviews* **106**, 105–120.

[A.24] Leigh C., Collier Cameron A. & Guillot T. 2003. Prospects for spectroscopic reflected-light planet searches. *M.N.R.A.S* **346**, 890–896

[A.25] Léger A., Selsis F., Sotin C., Guillot T., Despois D., Mawet D., Ollivier M., Labèque A., Valette C., Brachet F., Chazelas B., Lammer H. 2004. A new family of planets? "Ocean-Planets". *Icarus* **169**, 499–504.

[A.26] Saumon D., Guillot T. 2004. Shock Compression of Deuterium and the Interiors of Jupiter and Saturn. *ApJ* **609**, 1170–1180.

[A.27] Guillot T. 2005. The Interiors of Giant Planets: Models and Outstanding Questions. *Ann. Rev. Earth Plan. Sci.* **33**, 493–530.

[A.28] Hueso R., Guillot T. 2005. Evolution of protoplanetary disks: Constraints from DM Tauri and GM Aurigae. *A&A* **442**, 703-725.

[A.29] Iro N., Bézard B., Guillot T. 2005. A Time-Dependent Radiative Model of HD209458b. *A&A* **436**, 719-727.

[A.30] Saumon D., Guillot T. 2004. Astrophysical Implications of the Recent Shocked Deuterium Experiments. *Astrophysics and Space Science* **298**, 135–140.

[A.31] Guillot T. & Hueso R. 2006. The composition of Jupiter: sign of a (relatively) late formation in a chemically evolved protosolar disc. *MNRAS* **367**, L47–51.

[A.32] Santos NC, Pont F., Melo C., Israelian G., Bouchy F., Mayor M., Moutou C., Queloz D., Udry S. & Guillot T. 2006. High resolution spectroscopy of stars with transiting planets. The cases of OGLE-TR-10, 56, 111, 113, and TrES-1. *A&A* **450**, 825–831.

[A.33] Guillot T., Santos N.C., Pont F., Iro N., Melo C., Ribas I. 2006. A correlation between the heavy element content of transiting extrasolar planets and the metallicity of their parent stars. *A&A* **453**, L21-24.

[A.34] Ikoma M., Guillot T., Genda H., Takayuki T., Ida S. 2006. On the origin of HD149026b. *ApJ*, in press.

Chapters in review books :

[A.35] Wuchterl G., Guillot T. & Lissauer J.J. 2000. The formation of the giant planets. In *Protostars & Planets IV* (Eds. V. Mannings et al.), Univ. Arizona Press, pp.1081–1109.

[A.36] Guillot T., Stevenson D.J., Hubbard W.B. & Saumon D. 2004. The interior of Jupiter. In *Jupiter* (Eds. F. Bagenal et al.), Cambridge University Press, Cambridge, pp. 35–58.

[A.37] Guillot T. 2006. Physics of substellar objects: Interiors, atmospheres, evolution. In *Extrasolar Planets, 31th Saas-Fee Advanced Course 2001*, (Eds. Queloz et al.), Springer, pp. 243-368.

Publications as refereed conference proceedings :

[A.38] Burrows A., Hubbard W.B., Lunine J.I., Guillot T., Saumon D., Marley M. & Freedman R.S. 1996. Theoretical Models of Extrasolar Giant Planets. *Nuclear Phys. B (Proc. Suppl.)* **51B**, 76–85.

[A.39] Guillot T., Marley M.S., Saumon D. & Freedman R.S. 1997. Evolution and Spectra of Extrasolar Giant Planets. In *Infrared Space Interferometry: Astrophysics & the Study of Earth-like Planets*, Eds. C. Eiroa, A. Alberdi, H. Thronson, T. de Graauw and C.J. Schalinski eds., Kluwer Academic Publishers, Dordrecht, pp. 37–46.

[A.40] Guillot T., Saumon D., Burrows A., Hubbard W.B., Lunine J.I., Marley M.S. & Freedman R.S. 1997. On the nature of the newly discovered extrasolar planets. In *Astronomical and Biochemical Origins and the Search for Life in the Universe*, Eds. C.B. Cosmovici, S. Bowyer & D. Werthimer, pp. 343–350.

[A.41] Guillot T. 2000. Physics of planets: Observing Extrasolar Giant Planets with DARWIN/TPF. In *DARWIN and Astronomy*, ESA SP-451, Eds. M. Fridlung & R. Liseau, pp. 141–148.

[A.42] Guillot T. & Vannier M. 2003. Observing extrasolar planets with COROT and high contrast imaging. *Astronomy with high contrast imaging: From planetary systems to active galactic nuclei*, Eds. C. Aime & R. Soummer, EDP Sciences, 25–36.

[A.43] Guillot T., Showman A.P. 2003. Evolution and atmospheric circulation of "Pegasi planets". Dans *Scientific Frontiers in Research on Extrasolar Planets*, ASP Conference series, D. Deming & S. Seager, eds., pp. 503–512.

[A.44] Showman A.P., Guillot T. 2003. Atmospheric circulation of "Pegasi planets". Dans *Scientific Frontiers in Research on Extrasolar Planets*, ASP Conference series, D. Deming & S. Seager, eds., pp. 513–518.

[A.45] Saumon D., Guillot T. 2004. Shock compression of deuterium at Mbar pressures and the interior of Jupiter. In *Shock compression of condensed matter, AIP conference proceedings, 706*, M. Furnish et al. eds, pp.115–188.

[A.46] Fressin F., Guillot T., Bouchy F., Erikson A., Gay J., Léger A., Pont F., Rauer H., Rivet J.-P., Valbousquet F. 2005. Antarctica Search for Transiting Extrasolar Planets. EAS Pub. Series, vol. 14, pp.309–312.

[A.47] Guillot T. 2005. The evolution and structure of Pegasi planets: ten years of models and still much to learn! In *Tenth Anniversary of 51Peg b* (Eds. L. Arnold, F. Bouchy & C. Moutou), Frontier group, pp.205–217.

Other Publications

[B.1] Guillot T. 1991. Séparation de phase dans les plasmas astrophysiques denses totalement ionisés. *Rapport de DEA*. pp.1–30.

[B.2] Audic S., Guillot T., Weiss N.O. 1992. Structure des champs magnétiques solaires et stellaires. *Cours de Structure Interne de l'Ecole d'Aussois, 4ème session* (eds A.M. Hubert, E. Schatzman), pp. 1–60.

[B.3] Guillot T. 1994. Structure interne des planètes géantes. *Thèse, Université de Paris 7*. pp. 1–229.

[B.4] Guillot T & Chabrier G. 1996. La surprenante diversité des planètes géantes. *La Recherche* **290**, 47–50.

[B.5] Guillot T. 1997. Introduction à l'étude théorique des planètes géantes et des naines brunes. *Ecole de Goutelas 1997*.

[B.6] Guillot T. 2000. Seeing first light from extrasolar planet. *Physics World* **13**, 25-26.

[B.7] Guillot T. 2003. Physique des objets substellaires: Intérieurs, atmosphères, évolution. *Habilitation à diriger des recherches*, defended on 4 June 2003 (G. Chabrier, H. Levison & M. Mayor referees; M. Faurobert & P. Morel, jury).

[B.8] Guillot T. 2004. Probing giant planets. *Physics Today* **57**, pp. 63–69.

[B.9] Guillot T., Bouchy F., Vidal-Madjar A., Moutou C., Beaulieu J.-P., Malbet F., Ollivier M., Dutrey A., Coudé du Foresto V., Lopez B., Allard, F. 2006. Prospective Exoplanètes. *Document présenté à la Commission Spécialisée Astronomie de l'Institut National des Science de l'Univers, incluant une synthèse de la recherche française dans le domaine (2000-2005), et les perspectives à court et moyen terme (2005-2015).*

Invited Communications

[C.1] Guillot T. Condensation in Jupiter's atmosphere and the measurements of the Galileo probe. *NASA workshop on Galileo and Moist Convection in Jupiter*, November 1995, Ames/San Fransisco (USA).

[C.2] Guillot T., Saumon D. "On the Nature of the Companion of 51 Peg". Press conference given at the 187th Meeting of the American Astrophysical Society, January 1996, San Antonio (USA).

[C.3] Guillot T. "Evolution and Spectra of Extrasolar Giant Planets". *ESA/NASA workshop on Space Interferometry and the Detection of Extrasolar Planets*, March 1996, Toledo (Spain).

[C.4] Guillot T. 1997. Introduction à l'étude théorique des planètes géantes et des naines brunes. *Goutelas Summer School 1997 on Extrasolar Planets*, May 1997, Goutelas (France).

[C.5] Guillot T. 1998. Structure and Atmospheres of extrasolar giant planets. Conference on *Extrasolar planet detection and modelling*, Lisbon, Portugal, 27 April-1 May 1998.

[C.6] Guillot T. 1998. The interiors of Jupiter and Saturn. Conference on "The jovian system after Galileo, the saturnian system before Cassini-Huygens", Nantes, France, 11-15 May 1998.

[C.7] Guillot T. 1999. Interiors of giant planets and brown dwarfs. Conférence *From giant planets to cool stars*, Flagstaff, USA, 8-11 June 1999. [Member of the scientific committee]

[C.8] Guillot T. 1999. Giant planets interiors. *Gordon Research conference on Origins of solar systems*, Henniker, USA, 13-18 June 1999.

[C.9] Guillot T. 1999. Interiors of giant planets and brown dwarfs. *9º Encontro Nacional de Astronomia e Astrofísica*, Lisbon, Portugal, 28-29 July 1999.

[C.10] Guillot T. 1999. Planetary interiors. *1st interdisciplinary summer school on the solar system*, Coimbra, Portugal, 2-8 August 1999.

[C.11] Guillot T. 1999. The interiors of solar and extrasolar giant planets. *31st annual meeting of the Division for Planetary Sciences of the AAS*, Padova, Italy, 10-15 October 1999.

[C.12] Guillot T. 1999. Review: Physics of planets – II Extrasolar giant planets. Conference *DARWIN and astronomy – The infrared space interferometer*, Stockholm, Sweden, 17–19 November 1999.

[C.13] Guillot T. 2000. Composition of Giant planets and planetesimal delivery. Conference on *Disks, Planetesimals and Planets*, Tenerife, Spain, 24-28 January 2000.

[C.14] Guillot T., Marley M.S., Hubbard W.B., Saumon D., Burrows A. & Lunine J.I. 2000. Radii and Compositions of HD209458b and Tau Boo b. *EGS XXV General Assembly*, Nice, 25-29 April 2000.

[C.15] Guillot T. 2000. Extrasolar planets: a new class of astronomical objects. *Rencontre annuelle de la Société Canadienne d'Astronomie*, Vancouver, 26-28 May 2000.

[C.16] Guillot T. 2000. Equation of state and the structure of giant planets. *International workshop on warm dense matter*, Vancouver, 29-31 May 2000.

[C.17] Guillot T. 2001. Physics of substellar objects: Interiors, atmospheres, evolution. *31th Saas-Fee advanced course on Brown dwarfs and planets*, Grimentz, 2-7 April 2001

[C.18] Guillot T. 2001. The interior of Jupiter. *Jupiter: Planet, satellites & magnetosphere*, Boulder, 25-30 June 2001.

[C.19] Guillot T. 2001. Equations of state and interiors of giant planets and brown dwarfs. *Matter in Super-Intense Laser Fields*, San Feliu, 1-4 October 2001.

[C.20] Guillot T. & Saumon D. 2002. High pressure equations of state: interiors of giant planets and planet formation. *High Energy Density Laboratory Astrophysics*, Ann Arbor, 23-25 Febuary 2002.

[C.21] Guillot T. & Showman A. 2002. Atmospheres and evolution of 51 Peg-planets. *Scientific Frontiers in Extrasolar Planets*, Washington D.C., 18-21 June 2002.

[C.22] Guillot T. 2002. Hydrogen and Helium at High Pressures: Consequences for the Interiors of Giant Planets and Brown Dwarfs. *Gordon Conference on Research at High Pressures*, Meriden, 24-28 June 2002.

[C.23] Guillot T. 2002. The compositions of giant planets. *ISSI workshop for Michel Mayor's 60th birthday*, Saas-Fee, 2-6 September 2002.

[C.24] Guillot T. 2003. Equations d'état & formation planétaire, *LULI 2003*, Porquerolles, 25-30 June 2003.

[C.25] Guillot T. Giant planets & satellites, chair, *Gordon conference on Origins of Solar Systems*, Bristol USA, 6-11 July 2003.

[C.26] Guillot T., Paul J., Allard F. & Barman T. Modelling cloud formation in substellar atmospheres, *European Network on the formation and evolution of young stellar clusters*, Cambridge UK, 8-10 Sept. 2003.

[C.27] Guillot T. Solar system giants interior models., *Astrophysics of Planetary Systems*, Harvard, USA, 17-20 May 2004.

[C.28] Guillot T. The physics of "Pegasi planets", *Joint European and National Astronomical Meeting*, Granada, Spain, 13-17 September 2004.

[C.29] Guillot T., Hueso R. & Saumon D. The compositions and late formation of giant planets. *Origins: From first objects to extrasolar planets, Nishinomiya-Yukawa Symposium*, Nishinomiya, Japan, 4-6 November 2004.

[C.30] Guillot T. The compositions of giant planets. *Ringberg workshop on planet formation: Theory meets Observation*, Tegernsee, Germany, 19-22 December 2004

[C.31] Guillot T. Formation of Giant Planets: Constraints from Interior Models. *Kobe International School of Planetary Sciences 2005. Origin of Planetary Systems*, Kobe, Japan, 11-17 July 2005.

[C.32] Guillot T. 2005. The evolution and structure of Pegasi planets: ten years of models and still much to learn! In *Tenth Anniversary of 51Peg b*, OHP, France, 22-26 August 2005.

[C.33] Guillot T. 2006. The evolution of giant planets. In *Rencontres de Blois: Planetary Science – Challenges and Discoveries*, Blois, France, 28 May, 2 June 2006.

Organization of conferences

[D.1] Scientific committee of the conference *From giant planets to cool stars*, Flagstaff, USA, 8-11 June 1999 (chairs: M.S. Marley & C. Griffith).

[D.2] Coordinator of the Mini-program of the Institute for Theoretical Physics *Physics at High Pressures: Interiors of Giant Planets, Extrasolar Planets and Brown Dwarfs*, Santa-Barbara, January 8-26, 2001. Other coordinators: N. Ashcroft, R. Jeanloz, D.J. Stevenson.

[D.3] Scientific committee of the winter school *Chronologie de la formation du système solaire*, Les Houches, Jan 29-Feb 3, 2001. Chairs: J.-M. Petit & M. Froeshlé.

[D.4] Co-convenor of a session on "Formation of the Solar System and extrasolar planets" at the annual meeting of the European Geophysical Society (Convenor: H. Rauer), April 2001, 2002, Nice.

[D.5] Scientific committee of the workshop *Journées d'Imagerie à Très Haute Dynamique et détection d'exoplanètes*, Nice, 13-16 May 2002.

[D.6] Organisator of a workshop *Circumstellar disks & protoplanets*, Nice, 3-5 Feb. 2003. [www.obs-nice.fr/guillot/disk-workshop/]

[D.7] Chair of the Aussois Winter school on *Chronologie de la formation du système solaire. II. Des grains présolaires aux objets de Kuiper*, Aussois, 2-6 February 2004.

[D.8] Chair of the Aussois Winter school on *Chronologie de la formation du système solaire. III. Formation des premiers solides*, Aussois, 6-10 March 2006.

[D.9] *10th COROT Week*, President of the LOC, 5-9 June 2006.

Other Communications and Seminars

- about 25+ Invited seminars at the Observatories of Nice, Toulouse, Meudon, at the Institut d'Astrophysique de Paris, Lunar and Planetary Laboratory, Steward Observatory, Departement of Atmospheric Sciences (Tucson), Caltech (Pasadena), Washington University (St Louis), Carnegie Institute (Washington D.C.), Institute for Astronomy (Honolulu), Institut für Theoretische Astrophysik (Heidelberg), Los Alamos National Laboratory, University of Bern, DLR (Berlin), TiTech (Tokyo), ETH (Zurich).
- More than 70 other communications in international conferences

Supervision of students

• Supervisor of the PhD thesis of Nicolas Crouzet. Title "A STEP & COROT: la recherche de planètes et d'étoiles variables par photométrie". Beginning: October 2006.

• Supervisor of the *"Stage d'cole d'ingrieur 3me anne (Ecole Centrale, Paris)"* (Ingeneering school training period) of Vincent Morello. "A STEP: Yield prediction using realistic planetary evolution models". May-October 2006.

• Supervisor of the Master (year 1) training period of Alexis Matter. Title: "Calcul de l'enrichissement des planètes géantes lors du bombardement tardif". Febuary-June 2005.

• Co supervisor of the PhD thesis of Nicolas Iro (University of Paris 7; Supervisor: B. Bézard). Title: *Atmosphères des planètes extrasolaires*, defended on 7 January 2005.

• Supervisor of the Master (year 1) training period of Aurélien Garnier (Université d'Evry-Val-d'Essonne). Title "COROTlux: a software to simulate COROT lightcurves". January-March 2004.

• Supervisor of the DEA Training period (equiv. Master) of Julien Paul (University of Nice). Title "Cloud formation in substellar atmospheres". February-June 2003.

• Supervisor of the postdoctoral stay of Ricardo Hueso (OCA). "Atmospheres and formation of the giant planets". January 2001 to Decemeber 2002. Financed by a fellowship from the Basque Government, and by a Poincarré fellowship.

• Supervisor of the DEA Training period of Ana Teresa Tomas (Université de Grenoble). Title: *Formation des planètes géantes: mélange du noyau et de l'enveloppe*. March-July 2001.

• Referee of the PhD thesis of C. Goukenleuque (University of Paris 6). Title: *"Atmosphère des planètes extrasolaires géantes: un modèle d'équilibre radiatif"*. Defended on December 10, 1999.

Implication in large programs and space missions

• Member of the scientific committee and Co-I of the space mission COROT (Convection, Rotation of stars and planetary Transits)

• Co-I of the NASA "New frontier" Juno mission (Jupiter orbiter)

• PI of A STEP (Antarctica Search for Transiting Extrasolar Planets), proposal funded by the *Programme National de Planétologie* (in a study phase)

• Member of the scientific committee of the VLT-Planet Finder proposal (PI: J-L Beuzit)

Administration of Science

2006–	Member of the *Solar System Working Group* of the CNES.
2005–	Scientific Committee of the French *Programme National de Planétologie*
2005–	President of the *Groupe Exoplanètes* of the *Institut National des Sciences de l'Univers*
2003–2004	Scientific committee of the *Observatoire de la Côte d'Azur*
1999–2004	Scientific committee of the *Laboratoire Cassini*, CNRS UMR 6529
1998–2002	Scientific Committee of the French *Programme National de Planétologie*
1998–	Member of the local section of the CAES CNRS

Refereeing activity

• Referee for *Icarus*, *Astrophysical Journal Letters*, *Astrophysical Journal*, *Science*, *Nature*, *Astron. & Astrophys*, *Planetary and Space Science*, *Monthly Not. Roy. Astron. Soc.*, *Earth Moon and the Planets*, for NASA, NSF, ISSI.