

## Curriculum Vitae

### **Dr. Nicholas Achilleos**

#### **Personal Details**

Name: Nicholas Achilleos  
Department: Physics and Astronomy  
Present appointment: Reader in Planetary Physics

#### **Education/Qualifications**

<u>Dates</u>	<u>Detail of degree; diploma; other qualification</u>	<u>Institution</u>
1985	B.Sc. with Honours (Class 1) in Physics	University of Queensland (Australia)
1992	Ph. D. in 'Astronomy and Astrophysics'	Australian National University
2001	Diploma in Technical Team Leading	QA Training (UK)
2002-3	Distinctions in Group Theory and Network Design	Open University (UK)

#### **Professional History (in chronological order)**

<u>Dates</u>	<u>Detail of position held</u>	<u>Institution</u>
1992-1993	Attaché de Recherche	University of Montreal
1994-1999	Postdoctoral Research Associate	University College London
2000-2002	Software engineer / consultant / team leader	Logica plc
2002-2007	Operations engineer / support scientist for Cassini magnetometer team (	Imperial College
2007-	Lecturer (now Reader) with Physics and Astronomy Department	University College London

#### **Other Appointments and Affiliations**

- 2002-present **Cassini Mission Planning Representative**
- 2003-present **Member of the American Geophysical Union**
- 2006-present **Member of the London Mathematical Society**
- 2007-present **Member of 'Magnetospheres' and 'Atmospheres' Science Working Groups for the Jupiter / Icy satellites Explorer mission concept (JUICE):** I was asked to serve on these working groups by the JUICE lead scientists, in view of my expertise in both giant planet atmospheres and magnetospheres.
- 2008 **Member of the UK STFC (Science and Technology Facilities Council) Space Exploration Consultation / Advisory Panel:** I was approached by STFC to serve on this panel, in view of my involvement in the development / implementation of deep space missions such as Cassini.
- 2008-present **Member of the Royal Astronomical Society**
- 2009-2014 **Associate Editor, Journal of Geophysical Research (Space Physics)**
- 2010-2013 **Chair of the UCL 'Miracle' High Performance Computing Consortium:** In this role, my responsibilities included: (i) Representing users of UCL's 'Legion' cluster at regular meetings with UCL Research Computing; (ii) Presenting updates on this service to users at UCL and external 'Miracle' institutes (such as Imperial College); (iii) Approving new applications for user accounts; (iv) Working closely with UCL's 'Miracle' support programmer, to enable users to make optimum use of the computational services provided.

- 2010-present **Member of the UCL Research Computing Working Group:** I represent UCL academics (astrophysics) in this role, and work with UCL's Research Computing team, in order to implement the ongoing improvement and upgrade of computational services at UCL.
- 2010-2013 **Member of the project management board of the UK 'DiRAC' High-Performance Computing facility:** I was approached by STFC to take on this role, in view of my ongoing experience as the 'Miracle' project chair (see above item).
- 2010-present **Course Designer, Coordinator and Tutor, UCL MSc in Planetary Science:** This MSc is a new degree now being taught at UCL, thanks to my efforts. It has attracted students from the UK and Europe.
- 2010-2013 **Task Leader for 'Europlanet' Joint Research Activity 3 'Distributed Numerical Modelling Laboratory':** In this role, I provide leadership to an international team of scientists and software developers, in order to improve the research infrastructure for European planetary scientists.
- 2010-2012 **Consortium Leader for 'PlanetRISE',** a project being proposed under the European Framework 7 'Strengthening Space Foundations' call. The Consortium includes higher education institutes from the UK, the US, France, Belgium, Greece and Argentina.
- 2011-13 **Member of 'Europlanet' Users Advisory Board:** As part of this European board of planetary scientists, I helped to ensure the quality of the 'Europlanet' project's deliverables, in the context of their suitability for widespread use by researchers.
- 2012 **Co-investigator for Cassini Magnetometer instrument**
- 2012 **Visiting Professor at JAXA (Japanese Aeronautical and Space Exploration Agency)**
- **Regular referee for articles** in *Journal of Geophysical Research (Space Physics)*, *Icarus*, *Advances in Space Research*, *Annales Geophysicae*.
- **Regular referee of Planetary Science research proposals** for the UK Science and Technology Facilities Council (STFC).
- **Reviewer of several 'Cassini Supporting Investigator' proposals** submitted under NSPIRES (NASA Solicitation and Proposal Integrated Review and Evaluation System): I represented the interests of the Cassini Magnetometer team in assessing the suitability of applicants as supporting investigators for this instrument.
- 2005-present **Regular convener of sessions** at international conferences such as the Division of Planetary Sciences (DPS), American Geophysical Union (AGU), UK National Astronomy meeting (NAM), and Cassini-related science workshops.
- 2012 **Co-convener of a science workshop at International Space Science Institute (ISSI):** I was approached by colleagues in the planetary community, and helped submit a successful proposal to hold a 'Magnetodiscs' workshop (by invitation) at ISSI in November, 2012.
- 2012 **Proposed science co-I on three instrument teams** proposing to contribute to the payload of ESA's Jupiter Icy Moon Explorer (JUICE) mission.
- 2013 – **Science co-I on the proposed JUICE magnetometer (JMAG) instrument.**

#### **Prizes, Awards and other Honours:**

<u>Dates</u>	<u>Detail of prize, award or honour</u>	<u>Awarding/electing body</u>
2006	Imperial College Outstanding Employee Bonus for services on Cassini project	Imperial College
2008	New Journal of Physics 10 <sup>th</sup> Anniversary Research Highlight	Institute of Physics
2009	NASA Group Achievement Award: 'Cassini Magnetosphere Target Working Team'	NASA
2009	NASA Group Achievement Award: 'Cassini Titan Orbiter Science Team'	NASA
2012	Visiting Professorship Award for August-September of 2012	JAXA (Japanese Aeronautical and Space Exploration Agency)

2015 Invited Lecturer, 'Heliophysics' Summer University of Colorado / UCAR  
School (Colorado, US)

### **Invited talks:**

I am regularly invited to give talks at international conferences and workshops. I list here the major invitations for the last five years:

<u>Date</u>	<u>Details</u>
2015, June	<i>Invited talk ('Modelling Planetary Magnetodiscs') at 'Magnetospheres of the Outer Planets' (Atlanta, US)</i>
2012, December	<i>Invited talk ('Modelling Planetary Magnetodiscs') at American Geophysical Union Fall meeting (San Francisco, US)</i>
2012, August	<i>Invited talk ('Comparing Planetary Aurorae') at Asia-Oceania Geosciences Society conference.</i>
2012, May	<i>Invited talk ('Influence of Magnetospheric Internal Reconfiguration on Jovian Aurora') at 'Europlanet Auroral Workshop' (Santorini, Greece)</i>
2011, July	<i>Invited talk at 'Magnetospheres of the Outer Planets' conference (Boston, US): 'Role of the Atmosphere in Magnetosphere-Ionosphere Coupling'</i>
2010, November	<i>Invited Seminar at St. Andrews Mathematics Department: 'Force balance in Giant Planet Magnetodiscs'</i>
2010, June	<i>Invited to give a talk on magnetospheric boundaries at Western Pacific Geophysics Meeting (Taipei) (declined due to other commitments, delegated to colleague Dr. Adam Masters).</i>
2010, May	<i>Invited to give two talks on theoretical modelling of Jupiter's ionosphere and magnetosphere at a Science Working Group meeting for the JUICE/Laplace Europa-Jupiter Mission (ESTEC / ESA, Netherlands)</i>
2010, April	<i>Invited talk at 'Cassini Magnetospheres and Plasmas Workshop' (University of Paris): 'Effect of Hot Plasma Pressure on Saturn's Magnetodisk'</i>

### **Academic supervision:**

<u>Date</u>	<u>Details</u>
1992-93	Co-supervisor at University of Montreal of MSc student Serge Touzin.
2002-7	Supervisor / assessor of several MSci student projects, Third Year term projects, and vacation students, at Imperial College.
2003-6	Co-supervisor at Imperial College of Ph.D. student Christopher Arridge. Dr. Arridge is now on the faculty of Lancaster University.
2006-9	Co-supervisor at Imperial College of Ph.D. student Adam Masters. Dr. Masters is now a temporary lecturer at Imperial College.
2009-	Principal supervisor at UCL of Ph. D. student Japheth Yates. Dr. Yates is now a postdoctoral researcher at Imperial College.
2007-8	Supervisor at UCL of MSci student Daniel Went. Dr. Went has since completed a PhD at Imperial College.
2009-10	Supervisor at UCL of MSci student Ari Koliopoulos.
2009-10	Supervisor at UCL of summer students A. Kemp and C. Desai (visiting student from India)
2010-11	Supervisor at UCL of MSci student Kirthika Mohan. She is now pursuing a PhD degree at the Mullard Space Science Laboratory.
2011-12	Supervisor at UCL of MSc student Sarah Clarke.
2012-	Supervisor at UCL of Ph.D. student Nathan Pilkington (recently submitted).