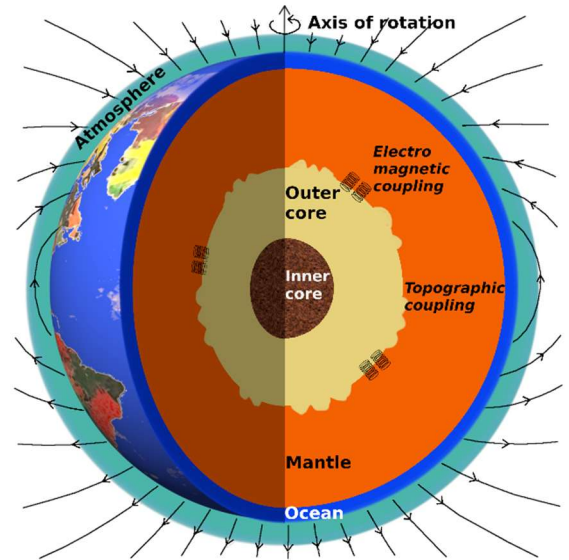


Véronique DEHANT

1. NARRATIVE GENERAL OVERVIEW

Véronique Dehant works at the Royal Observatory of Belgium, where she is Senior Researcher in the Operational Directorate "Reference Systems and Planetology". She is also Emeritus Professor at the Catholic University of Louvain (UCLouvain). She is an Academician (Member of the Royal Academy of Belgium, Science Class) since 2010, Foreign Member of the Paris Academy of Sciences since 2016 and has been awarded several prizes including the Descartes Prize of the European Union in 2003 and the De Leeuw-Damry-Bourlart Prize, Prize in Fundamental Exact Sciences among the five FNRS research excellence prizes, in 2020. In 2015, she obtained an ERC Advanced Grant from the European Research Council for her project RotaNut: Rotation and Nutation of a wobbly Earth; and in 2019, an ERC Synergy Grant for her project GRACEFUL (GRavimetry, mAgnetism, rotation, and CorE Flow). The GRACEFUL project, led by Dehant, Mandeau, and Cazenave, combines magnetic, gravitational, and rotational data with advanced models to reveal how Earth's core dynamics influence not only its deep interior but also the entire Earth system, including climate, through interconnected fluid and solid layers. Dehant is also involved in processing data from instruments in several space missions, in particular of the RISE experiment (Rotation and Interior Structure Experiment) on board the InSight mission (Interior Exploration using Seismic Investigations, Geodesy and Heat Transport) hibernating on the surface of Mars since 2023. She is working on a new ESA (European Space Agency) mission, GENESIS, that will improve reference frame precision and improve climate change and positioning results.



2. Five representative publications related to the Crafoord prize citation

(Cit. in Google Scholar)

1. Le Maistre S. et al., Dehant V. Spin state and deep interior structure of Mars from InSight radio tracking. *Nature*, 619, DOI: 10.1038/s41586-023-06150-0, **2023**. (33 cit.)

This study uses NASA's Mars InSight mission radio science data. By analyzing planetary rotation, it led to the pioneering discovery of a substantial liquid core.

2. Dehant V., Campuzano S.A., De Santis A., van Westrenen W., Structure, materials and processes in the Earth's core and mantle. *Surv. Geophys.*, 43, DOI: 10.1007/s10712-021-09684-y, **2022**. (19 cit.)

This paper reviews the Earth's core and deep mantle, examining the impact of core flows on global observations and processes at the core-mantle boundary. It laid the foundation for the GRACEFUL project.

3. Dehant V. and Mathews P.M., *Precession, Nutation, and Wobble of the Earth*, book, Cambridge Press, 536 pages, ISBN: 9781107092549, **2015**.

This comprehensive volume provides an in-depth exploration of Earth's precession, nutation, and wobble, focusing on their geophysical implications. The book has served as a foundational resource, helping scientists to better understand these phenomena and laying the groundwork for advancing precision in their study.

4. Dehant V., Defraigne P., and Wahr J.M., Tides for a convective Earth. J. Geophys. Res., 104, DOI: 10.1029/1998JB900051, **1999**. (459 cit.)
This influential paper presents tidal surface displacements and mass redistribution, using an Earth model that incorporates mantle convection and boundary deformations, successfully reproducing the observed free core nutation period and global dynamical flattening.

5. Dehant V., Tidal parameters for an inelastic Earth. Phys. Earth planet. Inter., 49, DOI: 10.1016/0031-9201(87)90134-8, **1987**. (266 cit.)
This paper calculates tidal gravimetric factors for an elliptical, rotating Earth with an inelastic mantle, resulting in a few percent increase in their values. These findings have been incorporated into a conventional model still advocated by the Earth Rotation and Reference Frame Service (IERS) Conventions.

TABLE OF CONTENTS

Véronique DEHANT 1

1. NARRATIVE GENERAL OVERVIEW **1**

2. FIVE REPRESENTATIVE PUBLICATIONS RELATED TO THE CRAFOORD PRIZE CITATION **1**

3. ACADEMIC CV..... **3**

PROFESSIONAL PRESENT INFORMATION3

HISTORY OF EMPLOYMENT.....3

DEGREES3

RESEARCH INTERESTS.....3

RESEARCH TRACK RECORD3

AWARDS AND HONORS4

TEACHING, SUPERVISOR OF PHD STUDENTS AND POSTDOCS5

COORDINATOR OF PROJECTS6

EXPERTISE, NATIONAL AND INTERNATIONAL FUNCTIONS6

EDITION7

OUTREACH8

4. BIBLIOGRAPHY (FULL LIST OF PUBLICATIONS) **9**

1. ACADEMIC CV

PROFESSIONAL PRESENT INFORMATION

Véronique M. Dehant
Royal Observatory of Belgium (ROB)
3 avenue Circulaire
B 1180 Brussels, Belgium

More details:
<http://homepage.oma.be/veroniq/>
Tel: +32 2 373 02 66
Cellular: +32 475 575953
Born 24 July 1959



HISTORY OF EMPLOYMENT

Graduate Research Assistant at UCL, 1981-1982

Graduate Research Assistant at Fonds National de la Recherche Scientifique (FNRS), 1982-1986

Post-doctoral Researcher at FNRS, 1986-1990; Research Associate at FNRS, 9/1990-3/1993

Work Leader at ROB, 4/1993-4/2013

Senior Research Scientist (SW4), 5/2013-present

Head of Section at ROB, 12/1997-12/2014; Head of Service at ROB, 1/1/2015-2024

Responsible of the Operational Directorate “Reference Systems and Planetology”, 2/2010-2024

+ Invited Lecturer at UCLouvain, 1991-1998; Part time Lecturer at UCLouvain, 1998-2000; Part time Professor at UCLouvain, 2000-2009; and Extraordinary Professor at UCLouvain, 2009-2024

+ Part time Lecturer (Maître de Conférence) at Université de Liège, Belgium, 2007-2024

+ Lecturer at Collège Belgique (Royal Academy) of Belgium and at Collège de France.

DEGREES

Degree in Mathematics 1981, Université Catholique de Louvain (UCLouvain)

Master 1982, Université Catholique de Louvain (UCLouvain)

Ph.D. 1986, Université Catholique de Louvain (UCLouvain)

Tenure 1992, Université Catholique de Louvain (UCLouvain)

RESEARCH INTERESTS

V. Dehant’s primary research interest lies in geodesy and geophysics, with a focus on the rotation, precession-nutation, and interior modeling of Earth and Mars, as well as gravity studies of Earth, Mars, and Venus. She explores the influence of Earth’s internal structure, free oscillations, internal convection, rheology, and external fluids (atmosphere and oceans) on its rotation and deformation. The goal is to improve models of Earth’s rotation, precession-nutation, and the realization of terrestrial and celestial reference frames, while advancing our understanding of the physics of Earth’s interior, particularly the core. Extending this research to other celestial bodies, she studies the rotation and internal dynamics of Mars, Venus, Mercury, and icy satellites, proposing radio-science experiments and applying similar methodologies to these planets and moons.

RESEARCH TRACK RECORD

Authored of 216 refereed publications (+ 0 in press, 4 submitted), 266 publications in un-refereed proceedings, 102 other publications, i.e. 584 published publications all together (without abstracts of conferences except extended abstracts) (February 2025).

H-index of 55 in Google Scholar, with 10725 citations; 44 in Scopus (February 2025).

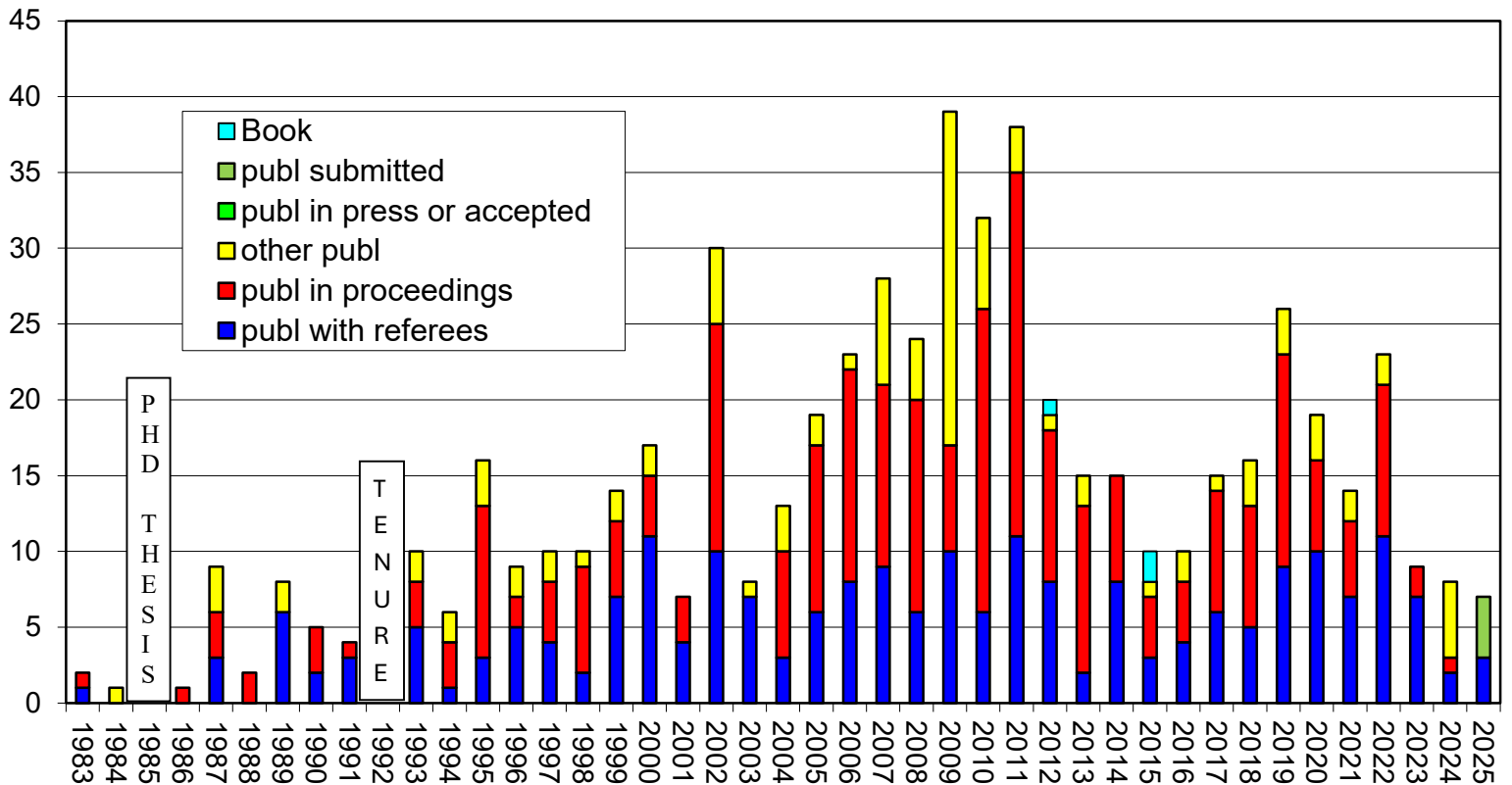
Authored of a book on “Precession, Nutation and Wobble of the Earth”, Dehant and Mathews, Cambridge University Press, 536 pages, April 2015, ISBN: 9781107092549.

Authored of a book on “Habiter sur Mars?”, Publ. Royal Acad. Belgium, 96 pages, Académie en poche, January 2012.

Authored of a book on “Habiter sur une lune du système solaire ?”, Publ. Royal Acad. Belgium, 141 pages, Académie en poche, September 2015.

Editor of three book-proceedings, in 2002, 2018 and 2022.

Authored of 1344 oral or poster presentations at the present date (February 2025).



AWARDS AND HONORS

1988 Award Charles Lagrange, prix quadriennal de la Classe des Sciences de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts

1999 IAG Fellow, 1991. Bomford Prize of IAG

1999 Member of the Academia Europaea

2003 Vening Meinesz Medal of the European Geophysical Society (EGU)

2003 Descartes Prize of the European Union

2007 American Geophysical Union (AGU) Fellow

2008 Membre Correspondant of the BdL (Bureau des Longitudes)

2008 Bronze Medal for Apophis Mission Design from the Planetary Society

2010 Member of the Royal Academy of Belgium, Sciences Class

2011 Honorary Member of BeWiSe (Belgian Women in Science)

2014 Doctor Honoris Causa of the Observatoire de Paris

2015 Membre Etranger of the Académie des Sciences de Paris

2016 Membre Correspondant of the Air and Space Academy of Toulouse

2016 Whitten Medal of the American Geophysical Union (AGU)

2016 Commandeur de l'Ordre de Léopold II, nomination by the King of Belgium

2019 Bowie Lecture of the AGU – Geodesy Section

2020 De Leeuw-Damry-Bourlart Prize, FNRS Quinquennial Prize in Fundamental Exact Sciences
 2021 NASA Certificate of Achievement for exemplary performance by the InSight Support Team
 2023 International Member of the US National Academy of Sciences (NAS)
 2023 Grand Officier de l'Ordre de la Couronne, nomination by the King of Belgium
 2023 Member of the European Academy of Sciences
 2024 Jean Dominique Cassini Union Medal of European Geosciences Union (EGU)
 2024 Honorary Member of the European Geosciences Union (EGU)

TEACHING, SUPERVISOR OF PHD STUDENTS AND POSTDOCS

Professor teaching at UCLouvain, Belgium, 1998-2024: (1) Astronomy and Geophysics at Bachelor level, (2) Internal Geophysics of the Earth and Planets at Master level, and (3) Space Geodesy at Master level.

Lecturer at Université de Liège, Belgium, 2007-2024: Geophysics of the Earth and Planets

Lecturer at 8 Summer Schools

Invited for 52 Seminars at universities and scientific institutions

Supervisor of 25 PhD theses since 1995: P. Defraigne 1995, F. Roosbeek 1998, O. de Viron 1999, M. Yseboodt 2003, J. Duron 2007, L. Koot 2009, G. Pfyffer 2010, R.M. Baland 2011, A. Rivoldini 2012, L.B. Pham 2012, A. Hees 2012, S. Le Maistre 2013, A. Coyette 2018, G. Lopez Rosson 2018, A. Trinh 2019, E. Gloesener 2019, D. Vincent 2020, Li Fuzhen 2022 joined with UCAS, M.J. Péters 2023, M. Noeker 2023, N. Yoshida 2023 joined with TohokuU, L. Ruiz Lozano 2023, V. Fortier 2023, S.A. Shih 2024, S. Koyama 2025 joined with TohokuU

Supervisor of 8 still in the pipeline (A. Caldiero 2025, V. Filice 2025, H. Sert 2025, A. Krishnan 2025, F. Seuren 2025, M. Goli 2026?, J. Martinez 2027?, G. Chicot 2027?)

Where are these PhD students at present? 10 at the Royal Observatory of Belgium: Defraigne, Roosbeek, Yseboodt, Baland, Rivoldini, Pham, Le Maistre, Rosson, Trinh, Ruiz Lozano; 9 in other Universities or Research Institutes: de Viron at ULaRochelle, Coyette at UNamur, Gloesener at ULilles, Fuzhen at UCAS, Yoshida & Koyama at TohokuU, Fortier at UMontpellier, Shih at IES Taiwan, Hees at Obs. Paris; 1 in High School teaching: Koot at HE2B; 1 in the German Space Agency (DLR): Noeker; 3 in the private sector: Duron at SARSAT, Pfyffer at CISART, Vincent at SEALAB; 1 as data scientist at the SPF Finances: Péters.

48 Postdocs under V. Dehant's leadership and under contract at the Royal Observatory of Belgium: Baland Rose-Marie, Borisov Stanislav (UCLouvain), Benck Sylvie (UCLouvain), Bergeot Nicolas, Bertrand Bruno, Beuthe Mikael, Bizouard Christian, Bultel Benjamin (UCLouvain), Coyette Alexis, de Viron Olivier, Defraigne Pascale, Degryse Karin, Deleflie Florent, Duron Julien, Folgueira Marta, Frede Valérie, Gilman Cédric, Gloesener Elodie, Hees Aurélien, Huang ChengLi, Karatekin Özgür, Koot Laurence, Kudryashova Maria, Laguerre Raphael, Lainey Valery, Lambert Sébastien, Legrand Juliette, Lemaistre Sébastien, Metivier Laurent, Mitrovic Michel, Ncono Colin, Noack Lena, Pfyffer Gregoire, Pham Lê Binh San, Pottiaux Eric, Rambaux Nicolas, Rekier Jeremy, Rivoldini Attilio, Robert Vincent, Roosbeek Fabian, Rosenblatt Pascal, Triana Santiago Andres, Trinh Antony, Verhoeven Olivier, Witasse Olivier, Yseboodt Marie, Zhu Ping

+ 4 Postdocs under V. Dehant's leadership and under contract at UCLouvain: Sylvie Benck, Bodranghien Florian, Borisov Stanislav, Gloesener Elodie

COORDINATOR OF PROJECTS

- 2020-**present** Coordinator of the ERC Synergy Grant of the EU, project GRACEFUL (GRavimetrie, mAgnetisme and CorE Flow), end in August 2025 (>35 researchers)
- 2018-2023 UCLouvain PI (Principal Investigator) of the EOS (Excellence Of Science) ET-HOME “Evolution and Tracers of the Habitability Of Mars and Earth” (>35 researchers)
- 2017-2022 Founder and Coordinator of Louvain4Space at UCLouvain (>80 researchers)
- 2014-2020 Coordinator of the ERC Advance Grant RotaNut (Rotation and Nutation of a wobbly Earth) (~15 researchers)
- 2012-2017 Coordinator of the Inter-University Attraction Pole (IUAP) Planet TOPERS (Planets: Tracing the Transfer, Origin, Preservation, and Evolution of their ReservoirS) (>40 researchers)

EXPERTISE, NATIONAL AND INTERNATIONAL FUNCTIONS

Functions in international unions (non-exhaustive list)

- 1987-**present** Member of the International Astronomical Union (IAU) since 1987, of the International Union of Geodesy and Geophysics (IUGG) since 1988, of the International Association of Geodesy (IAG) since 1988, of the European Geosciences Union (EGU) since 1989, of the American Geophysical Union (AGU) since 1989
- 2003-2007 President of Commission 3 “Geodynamics and Earth Rotation” of IAG
- 2003-2006 President of Commission 19 “Earth Rotation” of IAU
- 2002-2004 President (2000-2002 President-elect) of “Geodesy” Section of AGU

Functions in national committees and at the royal academy of Belgium (non-exhaustive list)

- 2025-**present** Vice-Director of Science Class of the Royal Academy of Belgium
- 2006-2008 President of the Belgian National Committee of Geodesy and Geophysics

Scientific responsibilities (non-exhaustive list)

- 2018-**present** Member of the Space Situational Awareness (SSA) Advisory Group of ESA (European Space Agency)
- 2006-**present** PI 2006-2020 & Deputy PI (>2020) of the Lander Radioscience experiment (LaRa)
- 2005-**present** Co-I of Mercury Orbiter Radio-science Experiment (MORE) and of BepiColombo Laser Altimeter (BeLA) in the frame of the ESA BepiColombo mission to Mercury
- 2003-**present** Co-I of the MarsExpress Radio Science experiment (MaRS) in the frame of the ESA MarsExpress mission
- 2012-**present** Team Member of the JUICE (JUper ICy moons Explorer) experiment, Gravity and Geophysics of Jupiter and the Galilean Moons (3GM)
- 2020-2023 Lead Co-I (co-Investigator) of Rotation and Interior Structure Experiment (RISE) in the frame of the InSight (Interior exploration using Seismic Investigations, Geodesy, and Heat Transport), mission in hibernation since 2023
- 2019-2021 Vice-President of the Board of Trustees of the International Space Science Institute (ISSI)
- 2017-2022 Member of the Scientific Committee of Helmholtz-Centre Potsdam - GFZ German Research Centre for Geosciences (Germany)
- 2014-2024 Director of the Center for Space Radiations (CSR) at UCLouvain
- 2004-2014 Co-I of the VenusExpress (VEX) Radio science experiment (VeRa) in the frame of the ESA VenusExpress mission
- 2000-2003 Chairperson of the IAU Commission 19 WG “Non-Rigid Earth Nutation Theory”
- 1998-2016 Head (1998-2002) and Member (2003-2016) of “Special Bureau for the Core” of the IERS (Earth Rotation and Reference Frame Service)
- 1994-2000 Chairperson of the joint IAU/IUGG WG “Non-Rigid Earth Nutation Theory”

1991-1997 President of the Working Group “Theoretical Tidal Model”, WG of the Earth Tide Permanent Commission of the IAG (International Association of Geodesy)

Expertise (non-exhaustive list)

2019-**present** Member of ERC Panel PE10 (2024 President of ERC Starting Grant Panel PE10)

2012-**present** Member of the Management Council of FRS-FNRS (Fonds de la Recherche Scientifique)

2012-2014 Member of “Space Science Advisory Committee (SSAC)” of ESA

2010-2013 Member of the Scientific Committee of International Space Science Institute (ISSI)

2010-2013 and 2004-2007 Member of the Scientific Council of Institut de Physique du Globe de Paris (IPGP)

2010-2011 Member of “Solar System Exploration Working Group (SSEWG)” of ESA

2009-2014 Member of the Comité des Programmes Scientifiques (CPS) of CNES (Centre National d’Etudes spatiales)

2006-2009 Member of “Exploration, Science and Technology Advisory Group (ESTAG)” of ESA

2005-2009 Member of the High Scientific Committee (Haut Comité Scientifique, HCS) of the Observatoire de Paris

EDITION

2024 Co-author of Chapter 2 “Mars in Short: Past and Present Geology and Climate”, of the book “Mars and the Earthlings: a realistic view on Mars exploration and settlement.”, Eds. C. Verseux, M. Gargaud, K. Lehto, and M. Viso

2023 Editor of the ISSI Topical Collection Book on “Probing Earth’s Deep Interior using Space Observations Synergistically.”, *Surveys in Geophysics*, 43(1)

2000 First author of the chapter “Earth’s rotation: theory” of the *Encyclopedia of Astronomy and Astrophysics*, Ed. P. Murdin

2018 Editor of the ISSI Topical Collection Book on “High Performance Clocks with Special Emphasis on Geodesy and Geophysics and Applications to Other Bodies of the Solar System.”, *Space Science Reviews*, 214(1)

2015 & 2000 First author of a chapter of the *Treatise of Geophysics*, Chapter 10.3.10. “Earth Rotation Variations”, Ed. G. Schubert, ISBN: 9780444538024, eBook ISBN: 9780444538031, 1st Edition 2000; 2nd Edition 2015

2015 Author of a book entitled “Habiter sur une lune de glace ?”, Collection *L’Académie en poche* – ebook of the Royal Academy of Belgium

2015 First author of a book entitled “Precession, Nutation, and Wobble of the Earth”, Cambridge University Press, second author P.M. Mathews, April 2015, 536 pages.

2014 Author of two chapters of the *Encyclopedia of the Solar System*, first author of Chapter 8 “Rotation of Planets”, and second author of Chapter 55 “Probing the Interiors of Planets with Geophysical Tools”, Eds. T. Spohn, D. Breuer, and T. Johnson, ISBN: 9780124158450

2014-2016 Associate Editor of *Journal of Space Weather and Space Climate (SWSC)*

2012-2017 Scientific responsible Editor of the publications “*l’Académie en poche*”

2012 Author of a book entitled “Habiter sur Mars ?”, Collection *L’Académie en poche* – ebook of the Royal Academy of Belgium

2002 Editor of the Book “Core Dynamics, Structure and Rotation”, AGU Geophysical Monograph, publication end

2000-2002 Member of the Publication Committee of AGU (American Geophysical Union)

1998-2014 Member of the Editorial Board of the “*IERS Conventions 2000*”, 1998-2003, and sporadically until 2014

OUTREACH

72 conferences for the public including at Collège de France (e.g., [2013](#), [2014](#)) and Collège Belgique (2009, [2011](#), [2012a](#), [2012b](#), [2014](#), [2015a](#), [2015b](#), 2017, [2019](#), 2022, 2023)

Numerous interviews in written press, radios, and televisions

Several press releases

Participation in open-doors events (e.g., at ESA or at the Royal Observatory or at UCLouvain)

Participation in science festivals

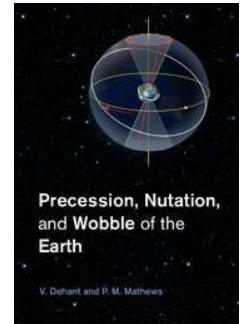
Participation in events for students such as “Printemps des Sciences”, “Switch to Space”, etc.



2. BIBLIOGRAPHY (FULL LIST OF PUBLICATIONS)

Book Publications:

1. Dehant V., 2012, “Habiter sur Mars ?”, livre de l’Académie en Poche, Ed. Académie royale de Belgique, 96 pages.
2. Dehant V. and Mathews P.M., 2015, “Precession, Nutation, and Wobble of the Earth.”, Cambridge University Press, ISBN: 9781107092549, Online ISBN: 9781316136133, DOI: 10.1017/CBO9781316136133, 536 pages, www.cambridge.org/9781107092549.
3. Dehant V., 2015, “Habiter sur une lune du système solaire ?”, de l’Académie en Poche, Ed. Académie royale de Belgique, 141 pages.



Book Proceedings Editor:

1. Dehant V., Creager K., Karato S., Zatman S. (Eds.), 2002, “Earth’s Core dynamics, structure and rotation.”, AGU Monograph series, Geodynamics Series Volume 31, ISSN: 0065-8448.
2. Dehant V., L.I. Gurvits, Kramer M., Park R., Wolf P., Zarnecki J., Rodrigo R. (Eds.), 2018, “High Performance Clocks with Special Emphasis on Geodesy and Geophysics and Applications to Other Bodies of the Solar System.”, Proc. International Space Science Institute (ISSI) Workshop, Space Sciences Series of ISSI – Volume 63, Space Science Reviews – Volume 214, ISSN: 1385-7525.
3. Dehant V., Manda M., Cazenave A. (Eds.), 2022, “Probing Earth's Deep Interior Using Space Observations Synergistically.”, Proc. International Space Science Institute (ISSI) Workshop, Space Sciences Series of ISSI – Volume 85, Surveys in Geophysics – Volume 43, ISBN: 978-3-031-39281-8.

Peer-refereed Publications:

1. Dehant V. and Pâquet P., 1983, “Modeling of the apparent height variations of a TRANET station.”, Bulletin Géodésique, 57, pp. 354-364, DOI: 10.1007/BF02520938.
2. Dehant V., 1987, “Integration of the gravitational motion equations for an elliptical uniformly rotating Earth with an inelastic mantle.”, Phys. Earth Planet. Inter., Vol. 49, pp. 242-258, DOI: 10.1016/0031-9201(87)90027-6.
3. Dehant V. and Ducarme B., 1987, “Comparison between the theoretical and observed tidal gravimetric factors.”, Phys. Earth Planet. Inter., Vol. 49, pp. 192-212, DOI: 10.1016/0031-9201(87)90022-7.
4. Dehant V., 1987, “Tidal parameters for an inelastic Earth.”, Phys. Earth Planet. Inter., Vol. 49, pp. 97-116, DOI: 10.1016/0031-9201(87)90134-8.
5. Dehant V., 1989, “Core undertones in an elliptical uniformly rotating Earth.”, in: Proc. Symp. U2, 19th General Assembly of the IUGG, Vancouver, Canada, August 1987, Geophysical Monograph 46, IUGG Vol. 1: Structure and Dynamics of the Earth’s Deep Interior, Eds. D.E. Smylie and R. Hide, pp. 29-34, DOI: 10.1029/GM046p0029.
6. Melchior P., Crossley D., Dehant V., and Ducarme B., 1989, “Have inertial waves been identified from the Earth’s core?”, in: Proc. Symp. U2, 19th General Assembly of the IUGG, Vancouver, Canada, August 1987, Geophysical Monograph 46, IUGG Vol. 1: Structure and Dynamics of the Earth’s Deep Interior, Eds. D.E. Smylie and R. Hide, pp. 1-12, DOI: 10.1029/GM046p0001.
7. Dehant V. and Zschau J., 1989, “The effect of mantle inelasticity on tidal gravity: a comparison between the spherical and the elliptical Earth model.”, Geophys. J., Vol. 97, pp. 549-555, DOI: 10.1111/j.1365-246X.1989.tb00522.x.
8. Berger A., Loutre M.F., and Dehant V., 1989, “Influence of the changing lunar orbit on the astronomical frequencies of pre-Quaternary insolation patterns.”, Paleoceanography, Vol. 4, no 5, pp. 555-564, DOI: 10.1029/PA004i005p00555.
9. Berger A., Loutre M.F., and Dehant V., 1989, “Astronomical frequencies for pre-Quaternary paleoclimat studies.”, Terra Nova, Vol. 1, no 5, pp. 474-479, DOI: 10.1111/j.1365-3121.1989.tb00413.x.
10. Berger A., Loutre M.F., and Dehant V., 1989, “Pre-Quaternary Milankovitch frequencies.”, Nature, Vol. 342, pp. 133, DOI: 10.1038/342133b0.

11. Dehant V., Loutre M-F., and Berger A., 1990, "Potential impact of the Northern hemisphere Quaternary ice sheets on the frequencies of astroclimatic orbital parameters.", *J. Geophys. Res.*, Vol. 95, no D6, pp. 7573-7578, DOI: 10.1029/JD095iD06p07573.
12. Dehant V., 1990, "On the nutations of a more realistic Earth's model.", *Geophys. J. Int.*, Vol. 100, pp. 477-483, DOI: 10.1111/j.1365-246X.1990.tb00700.x.
13. Dehant V., 1991, "Tidal parameters and nutation: influence from the Earth interior.", in: *Proc. Symp. U4, 19th General Assembly of the IUGG, Vancouver, Canada, August 1987, Geophysical Monograph*, 59, pp. 69-77, DOI: 10.1029/GM059p0069.
14. Dehant V. and Wahr J.M., 1991, "The response of a compressible, non-homogeneous Earth to internal loading: Theory.", *J. Geomagn. Geoelectr.*, 43, pp. 157-178, DOI: 10.5636/jgg.43.157.
15. Dehant V., 1991, "Review of the Earth tidal models and contribution of Earth tides in geodynamics.", *J. Geophys. Res.*, 96, B12, pp. 20235-20240, DOI: 10.1029/91JB01529.
16. Dehant V., Hinderer J., Legros H., and Lefftz M., 1993, "Analytical approach to the computation of the Earth, the outer core and the inner core rotational motions.", *Phys. Earth Planet. Inter.*, 76, pp. 259-282, DOI: 10.1016/0031-9201(93)90018-5.
17. Legros H., Hinderer J., Lefftz M., and Dehant V., 1993, "The influence of the solid inner core on gravity changes and spatial nutations induced by luni-solar tides and surface loading.", *Phys. Earth Planet. Inter.*, 76, pp. 283-315, DOI: 10.1016/0031-9201(93)90019-6.
18. Dehant V., 1993, "Free and forced oscillations in the core and the mantle.", in: *Proc. World Space Congress 92, COSPAR meeting, 28 August - 9 Sept. 1992, Washington DC, USA, Eds. J.M. Wahr and J. Dickey, Adv. Space Res.*, 13, 11, pp. (11)235-(11)249, DOI: 10.1016/0273-1177(93)90226-2.
19. Dehant V., Ducarme B., and Defraigne P., 1993, "New analysis of the superconducting gravimeter data of Brussels.", *Dynamics of Earth's Deep Interior and Earth Rotation, Geophysical Monograph (IUGG/AGU Publication)*, 72, IUGG Vol. 12, pp. 35-44.
20. Degryse K. and Dehant V., 1993, "Analytical computation of modes using boundary layer theory.", *Dynamics of Earth's Deep Interior and Earth Rotation, Geophysical Monograph (IUGG/AGU Publication)*, 72, IUGG Vol. 12, pp. 69-80, DOI: 10.1029/GM072p0069.
21. Defraigne P., Dehant V., and Hinderer J., 1994, "Stacking gravity tide measurements and nutation observations in order to determine the complex eigenfrequency of the Nearly Diurnal Free Wobble.", *J. Geophys. Res.*, 99, B5, pp. 9203-9213, DOI: 10.1029/94JB00133.
22. Defraigne P., Dehant V., and Hinderer J., 1995, "Correction to 'Stacking gravity tide measurements and nutation observations in order to determine the complex eigenfrequency of the Nearly Diurnal Free Wobble'.", *J. Geophys. Res.*, 100, B2, pp. 2041-2042, DOI: 10.1029/94JB02914.
23. Degryse K. and Dehant V., 1995, "Analytical computation of modes for an Earth with viscous boundary layers, and influence of viscosity on non-rotating Slichter period.", *Manuscripta Geodetica*, 20, pp. 498-514.
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