

## PUBLICATIONS planetary science 1999-2017 – Refereed Publications

1. Harri, A.-M., Marsal O., Lognonné P., Leppelmeier G.W., Spohn T., Lognonné P., Glassmeier K.-H., Angrilli F., Banerdt W.B., Barriot J.P., Bertaux J.-L., Berthelier J.J., Calcutt S., Cerisier J.C., Crisp D., **Dehant V.**, Di Pippo S., Giardini D., Guerrier D., Jaumann R., Kumpulainen K., Langevin Y., Larsen S., Menvielle M., Musmann G., Polkko J., Pommereau J.P., di Pippo S., Guerrier D., Kumpulainen K., Larsen S., Mocquet A., Polkko J., Runavot J., Schumacher W., Siili T., Simola J., Tillman J.E., **1999**, "Network Science Landers for Mars.", Advances in Space Research, Vol 23, No 11, pp. 1915-1924, DOI: 10.1016/S0273-1177(99)00279-3.
2. Lognonné P., Giardini D., Banerdt B., Gagnepain-Beyneix J., Mocquet A., Spohn T., Karczewski J.F., Schibler P., Cacho S., Pike T., Cavoit C., Desautez A., Pinassaud J., Breuer D., Campillo M., **Defraigne P.**, **Dehant V.**, Deschamp A., Hinderer J., Leveque J.J., Montagner J.P., and Oberst J., **1999**, "The NetLander Very Broad Band seismometer.", Planet. Space Sc., 48, 12-14, pp. 1289-1302.
3. **Dehant V.**, **Defraigne P.**, and **Van Hoolst T.**, **2000**, "Computation of Mars' transfer function for nutation, tides, and surface loading.", Phys. Earth planet. Inter., 117, pp. 385-395.
4. **Van Hoolst T.**, **Dehant V.**, and **Defraigne P.**, **2000**, "Sensitivity of the Free Core Nutation and the Chandler Wobble to changes in the interior structure of Mars.", Phys. Earth planet. Inter., 117, pp. 397-405.
5. Lognonné P., Giardini D., Banerdt B., Gagnepain-Beyneix J., Mocquet A., Spohn T., Karczewski J.F., Schibler P., Cacho S., Pike T., Cavoit C., Desautez A., Pinassaud J., Breuer D., Campillo M., **Defraigne P.**, **Dehant V.**, Deschamp A., Hinderer J., Leveque J.J., Montagner J.P., and Oberst J., **2000**, "A European seismic network on Mars with NetLander.", Orfeus Newsletter, 2(2), pp. 12.
6. **Defraigne P.**, **de Viron O.**, **Dehant V.**, **Van Hoolst T.**, and Hourdin F., **2000**, "Mars rotation variations induced by atmospheric CO<sub>2</sub> and winds.", J. Geophys. Res (Planets), 105, E10, pp. 24563-24570.
7. **Van Hoolst T.**, **Dehant V.**, and **Defraigne P.**, **2000**, "Chandler Wobble and Free Core Nutation for Mars.", Planet. Space Sc., 48, 12-14, pp. 1145-1151.
8. **Dehant V.**, **Van Hoolst T.**, and **Defraigne P.**, **2000**, "Comparison between the nutations of the planet Mars and the nutations of the Earth.", Survey Geophys., 21, 1, pp. 89-110.
9. **Roosbeek F.**, **2000**, "Analytical developments of rigid Mars nutation and tide generating potential series.", Celestial Mechanics and Dynamical Astronomy, 75, pp. 287-300.
10. Trotignon J.G., Parrot M., Cerisier J.C., Menvielle M., Axford W.I., Pätzold M., **Warnant R.**, and Wernik A.W., **2000**, "The plasma environment of Mars: from the shocked solar wind down to the ionosphere.", Planet. Space Sc., 48(12-14), pp. 1181-1191.
11. **Defraigne P.**, **Dehant V.**, and **Van Hoolst T.**, **2001**, "Steady state convection in Mars' mantle.", Planet. Space Sc., 49, pp. 501-509.
12. Barriot J.P., **Dehant V.**, Cerisier J.C., Folkner W., Rhibes A., Benoist J., **Van Hoolst T.**, **Warnant R.**, Preston R.A., Romans L., Wu S., and A.W. Wernik, **2001**, "NEIGE: NetLander Ionosphere and Geodesy Experiment.", Adv. Space Res., 28(8), pp. 1237-1249.
13. **Van den Acker E.**, **Van Hoolst T.**, **de Viron O.**, **Defraigne P.**, **Dehant V.**, Forget F., and Hourdin F., **2002**, "Influence of the winds and of the CO<sub>2</sub> mass exchange between the atmosphere and the polar ice caps on Mars' orientation parameters.", J. Geophys. Res. (Planets), 107(E7), pp. 9-1, CiteID 5055, DOI: 10.1029/2000JE001539.
14. **Van Hoolst T.**, **V. Dehant, O. de Viron**, **Defraigne P.**, and Barriot J.P., **2002**, "Degree-one displacements on Mars.", Geophys. Res. Lett., DOI: 10.1029/2002GL014711.
15. **Van Hoolst T.** and **Dehant V.**, **2002**, "Influence of triaxiality and second-order terms in flattenings on the rotation of terrestrial planets: I. Formalism and rotational normal modes.", Phys. Earth planet. Inter., 134, pp. 17-33.

16. **Witasse O.**, Dutuit O., Lilensten J., Thissen R., Zabka J., Alcaraz C., Blelly P.-L., Bouger S.W., Engel S., Andersen L.H., Seiersen K., **2002**, “Prediction of a CO<sub>2</sub><sup>2+</sup> layer in the atmosphere of Mars.”, *Geophys. Res. Lett.*, 10.1029/2002GL014781.
17. **Carpentier G.** and **Roosbeek F.**, **2002**, “Analytical Development of Rigid Mercury Nutation Series.”, *Celestial Mechanics and Dynamics Astronomy*, 2202, pp. 1-14.
18. **Van Hoolst T.**, **Dehant V.**, **Roosbeek F.**, and Lognonné P., **2003**, “Tidally induced surface displacements, external potential variations, and gravity variations on Mars.”, *Icarus*, 161, 281-296, DOI: 10.1016/S0019-1035(2)00045-2.
19. **Yseboodt M.**, Barriot J.P., and **Dehant V.**, **2003**, “Analytical modeling of the Doppler tracking between a lander and a Mars orbiter in term of rotational dynamics.”, *J. Geophys. Res. (Planets)*, 108(E7), 5076, DOI: 2003JE002045.
20. **Dehant V.**, **Van Hoolst T.**, **de Viron O.**, Greff-Lefftz M., Legros H., and **Defraigne P.**, **2003**, “Can a solid inner core of Mars be detected from observations of polar motion and nutation of Mars?”, *J. Geophys. Res. (Planets)*, 108(E12), DOI: 10.1029/2003JE002140.
21. **Defraigne P.**, **Rivoldini A.**, **Van Hoolst T.**, and **Dehant V.**, **2003**, “Mars nutation resonance due to Free Inner Core Nutation.”, *J. Geophys. Res. (Planets)*, 108(E12), DOI: 10.1029/2003JE002145.
22. **Duron J.**, **Rosenblatt P.**, **Yseboodt M.**, **Karatekin Ö.**, **Dehant V.**, **Van Hoolst T.**, and Barriot J.P., **2003**, “Joint estimation of Martian C<sub>20</sub> and rotation variations from simultaneous geodetic measurements: Numerical simulations of a Network Science Experiment.”, *Geophys. Res. Letters*, 30(18), 1971, DOI: 10.1029/2003GL018353.
23. **Van Hoolst T.**, and C. Jacobs, **2003**, “Mercury's tides and interior structure.”, *J. Geophys. Res. (Planets)*, 108, DOI: 10.1029/2003JE002126.
24. **Rosenblatt P.**, Marty J.C., Perosanz F., Barriot J.P., **Van Hoolst T.**, and **Dehant V.**, **2004**, “Numerical simulations of a Mars Geodesy Network Experiment: Effect of orbiter angular momentum desaturation on Mars' rotation estimation.”, *Planet. Space Sc.*, 52(11), pp. 965-975, DOI: 10.1016/j.pss.2004.07.017.
25. **Dehant V.**, Lognonné Ph., Sotin C., **2004**, “Network science, NetLander: a European mission to study the planet Mars.”, *Planet. Space Sc.*, 52(11), pp. 977-985.
26. **Morel L.**, **Witasse. O.**, **Warnant R.**, Cerisier J-C., Blelly P., and Lilensten J., **2004**, “Diagnostic of the dayside ionosphere of Mars using the Total Electron Content measurement by the NEIGE/Netlander experiment.”, *Planet. Space Sc.*, 52, pp.603-611.
27. **Lainey V.**, Arlot J.E., and Vienne A., **2004**, “New accurate ephemerides for the Galilean satellites of Jupiter: II-Fitting the observations.”, *Astron. Astrophys.*, 427, pp. 371-376, DOI: 10.1051/0004-6361:20041271.
28. **Rambaux N.** and Bois E., **2004**, “Theory of Mercury's spin-orbit motion and analysis of its main librations.”, *Astron. Astrophys.*, 413, pp. 381-393, DOI: 10.1051/0004-6361:20031446.
29. **Lainey V.**, Duriez L., and Vienne A., **2004**, “New accurate ephemerides for the Galilean satellites of Jupiter. I. Numerical integration of elaborated equations of motion.”, *Astron. Astrophys.*, 420, pp. 1171-1183, DOI: 10.1051/0004-6361:20034565.
30. **Verhoeven O.**, **Rivoldini A.**, Vacher P., Mocquet A., Choblet G., Menville M., **Dehant V.**, **Van Hoolst T.**, **Sleewaegen J.**, Barriot J.P., and Lognonné P., **2005**, “Interior structure of terrestrial planets. I. Modeling Mars' mantle and its electromagnetic, geodetic and seismic properties.”, *J. Geophys. Res. (Planets)*, 110(E4), E04009, DOI: 10.1029/2004JE002271.
31. **Karatekin Ö.**, **Duron J.**, **Rosenblatt P.**, **Van Hoolst T.**, **Dehant V.**, Barriot J.P., **2005**, “Mars' Time-Varying Gravity and its Determination: Simulated Geodesy Experiments.”, *J. Geophys. Res. (Planets)*, 110(E6), E06001, DOI: 10.1029/2004JE002378.
32. **Dehant V.**, **de Viron O.**, Greff-Lefftz M., **2005**, “Atmospheric and oceanic excitation of the rotation of a three-layer Earth.”, *Astron. Astrophys.*, Vol. 438, pp. 1149-1161, DOI: 10.1051/0004-6361:20042210.

33. **Lainey V.** and Tobie G., 2005, “New constraints on Io's and Jupiter's tidal dissipation.”, Icarus, Vol. 179, Issue 2, DOI: 10.1016/j.icarus.2005.07.017, pp. 485-489.
34. Iorio L., **Lainey V.**, 2005, “The Lense-Thirring effect in the Jovian system of the Galilean satellites and its measurability.”, Special Issue of Int. J. Mod. Phys. D, ‘Gravitation; Astrophysics and Cosmology’, Vol. 14, No. 12, pp. 2039-2049.
35. **Koot L.**, de Viron O., and **Dehant V.**, 2005, “Atmospheric angular momentum time series: characterization of their internal noise and creation of a combined series.”, in Proc. of the Workshop on ‘Forcing of polar motion in the Chandler Wobble frequency band: a contribution to understanding interannual climate variations’, April 21-23 2004, Luxembourg, Cahier du Centre Européen de Géophysique et de Séismologie, Vol. 24, pp. 9-14.
36. de Viron O., **Koot L.**, and **Dehant V.**, 2005, “Polar motion models: the torque approach.”, J. Geophys. Res., 113, B08414, DOI:10.1029/2007JB005409.
37. **Dehant V.**, **de Viron O.**, **Karatekin Ö.**, and **Van Hoolst T.**, 2006, “Excitation of Mars polar motion.”, Astron. Astrophys., 446(1), DOI: 10.1051/0004-6361:20053825, pp. 345-355.
38. **Beuthe M.**, **Rosenblatt P.**, **Dehant V.**, Barriot J.P., Pätzold M., Häusler B., **Karatekin Ö.**, **Le Maistre S.**, and **Van Hoolst T.**, 2006, “Assessment of the Martian gravity field at short wavelength with Mars Express.”, Geophys. Res. Letters, 33, L03203, DOI: 10.1029/2005GL024317.
39. **Karatekin Ö.**, **Dehant V.**, and **Van Hoolst T.**, 2006, “Martian global-scale CO<sub>2</sub> exchange from time-variable gravity measurements.”, J. Geophys. Res. (Planets), 111, E06003, DOI: 10.1029/2005JE002591.
40. **Karatekin Ö.** and **Van Hoolst T.**, 2006, “The effect of a dense atmosphere on the tidally induced potential of Titan.”, Icarus, 183(1), pp. 230-232.
41. Van Thienen P., **Rivoldini A.**, **Van Hoolst T.**, and Lognonné P., 2006, “A top-down origin for martian mantle plumes.”, Icarus, 185(1), pp. 197-210, DOI: 10.1016/j.icarus.2006.06.008.
42. **Yseboodt M.** and Margot J.L., 2006, “Evolution of Mercury's obliquity.”, Icarus, 181, pp. 327-337, DOI: 10.1016/j.icarus.2005.11.024.
43. **Karatekin Ö.**, **Van Hoolst T.**, **Tastet J.**, **de Viron O.**, and **Dehant V.**, 2006, “The effects of seasonal mass redistribution and interior structure on Length-of-Day variations of Mars.”, Adv. Space Res., 38(4), pp. 739-744, DOI: JASR-D-04-01301R1.
44. Häusler B., Pätzold M., Tyler G.L., Simpson R.A., Bird M.K., Treumann R.A., **Dehant V.**, Eidel W., Remus S., Selle J., Tellmann S., and Imamura T., 2006, “Radio Science Investigations by VeRa onboard the Venus Express Spacecraft.”, Planet. Space Sc., 54(13-14), 1315-1335, DOI: 10.1026/j.pss.2006.04.032.
45. **Lainey V.**, Duriez L., and Vienne A., 2006, “Synthetic representation of the Galilean satellites' orbital motions from L1 ephemerides.”, Astron. Astrophys., 456, 783-788, DOI: 10.1051/0004-6361:20064941.
46. Arlot J.E., **Lainey V.**, and Thuillot W., 2006, Predictions of the mutual events of the Uranian satellites occurring in 2006-2009.”, Astron. Astrophys., 456, 1173-1179.
47. Pireaux S., Barriot J.P., and **Rosenblatt P.**, 2006, “(SC)RMI: A (S)emi-(C)lassical (R)elativistic (M)otion (I)ntegrator, to model the orbits of space probes around the Earth and other planets.”, Acta Astronautica, 59, pp. 517-523, DOI: 10.1016/j.actaastro.2006.04.006.
48. D'Hoedt S., Lemaître A., and **Rambaux N.**, 2006, “Mercury's Rotation: The four equilibria of the Hamiltonian model.”, Celest. Mech. Dyn. Astron., 96, pp. 253-258.
49. Lemaître A., D'Hoedt S., and **Rambaux N.**, 2006, “The 3:2 spin-orbit resonant motion of Mercury.”, Celest. Mech. Dyn. Astron., 95, pp. 213-224.
50. **Métivier L.**, Greff-Lefftz M., and Diament M., 2006, “Mantle lateral variations and elasto-gravitational deformations - I. Numerical modeling.”, Geophys. J. Int., 167(3), pp. 1060-1076, DOI:10.1111/j.1365-246X.2006.03159.x.

51. **Dehant V.** and **Van Hoolst T.**, 2007, "Gravity, rotation, and interior of the terrestrial planets from planetary geodesy.", in: Proc. IAG-IAPSO-IABO General Assembly on 'Dynamic planet', Cairns, Australia, Chapter 124, 887-894.
52. Balmino G., **Duron J.**, Marty J.C., **Karatekin Ö.**, 2007, "Mars long wavelength gravity field time variations. A new solution from MGS tracking data.", in: Proc. IAG-IAPSO-IABO General Assembly on 'Dynamic Planet: Monitoring and understanding a dynamic planet with geodetic and oceanographic tools', Editors: P. Tregoning, C. Rizos, Proceedings Series, Springer Verlag, Berlin Heiderberg New York, Chap. 125, pp. 895-902.
53. **Métivier L.**, Greff-Lefftz M., and Diament M., 2007, "Mantle lateral variations and elasto-gravitational deformations - II. Possible effects of a superplume on body tides.", *Geophys. J. Int.*, 168(3), pp. 897-903, DOI: 10.1111/j.1365-246X.2006.03309.x.
54. **Lainey V.**, **Dehant V.**, and Pätzold M., 2007, "First numerical ephemerides of the two Martian moons.", *Astron. Astrophys.*, 465(3), pp. 1075-1084, DOI: 10.1051/0004-6361:20065466.
55. Thomas N., Spohn T., Barriot J.P., Benz W., Beutler G., Christensen U., **Dehant V.**, Fallnich C., Giardini D., Groussin O., Gunderson K., Hauber E., Hilchenbach M., Iess L., Jorda L., Lamy P., Lara L.-M., Lognonné P., Lopez-Moreno J.J., Michaelis H., Oberst J., Resendes D., Rodrigo R., Sasaki S., Seiferlin K., Wieczorek M., Whitby J., 2007, "The BepiColombo Laser Altimeter (BELA): concept and baseline design.", *Planet. Space Sci.*, 55, pp. 1398-1413, DOI: 10.1016/j.pss.2007.03.003.
56. **Rambaux N.**, **Van Hoolst T.**, **Dehant V.**, and Bois E., 2007, "Inertial core-mantle coupling and libration of Mercury.", *Astron. Astrophys.*, 468(2), pp. 711-719, DOI: 10.1051/0004-6361:20053974.
57. **Dehant V.**, Lammer H., Kulikov Y., Grießmeier J.M., Breuer D., **Verhoeven O.**, **Karatekin Ö.**, **Van Hoolst T.**, Koralev O., and Lognonné P., 2007, "Planetary Magnetic Dynamo Effect on Atmospheric Protection of Early Earth and Mars.", in: 'Geology and Habitability of Terrestrial Planets', Eds. K. Fishbaugh, P. Lognonné, F. Raulin, D. Des Marais, O. Koralev, Space Science Series of ISSI, Vol. 24, reprinted from *Space Science Reviews*, Springer, Dordrecht, The Netherlands, *Space Science Reviews*, 129(1-3), pp. 279-300, DOI: 10.1007/s11214-007-9163-9.
58. Lammer H., **Dehant V.**, Koralev O., and Lundin R., 2007, "Planetary-Sun interactions.", in: 'Geology and Habitability of Terrestrial Planets', Eds. K. Fishbaugh, P. Lognonné, F. Raulin, D. Des Marais, O. Koralev, Space Science Series of ISSI, Vol. 24, reprinted from *Space Science Reviews*, Springer, Dordrecht, The Netherlands, *Space Science Reviews*, 129(1-3), pp. 205-206, DOI: 10.1007/s11214-007-9190-6.
59. Peale S.J., **Yseboodt M.**, and Margot J.L., 2007, "Long Period Forcing of Mercury's Libration in Longitude.", *Icarus*, 187, pp. 365-373, doi:10.1016/j.icarus.2006.10.028.
60. **Dehant V.** and Mathews P.M., 2007, "Earth Rotation Variations.", Treatise on Geophysics, Volume 3 'Geodesy', Eds. T. Herring and J. Schubert, pp. 295-349, ISBN: 978-0-444-52748-6, DOI: 10.1007/s11214-007-9202-6.
61. **Van Hoolst T.**, 2007, "The rotation of the terrestrial planets.", Treatise on Geophysics, Volume 10 'Planets and Moons', Eds. T. Spohn and J. Schubert, pp. 123-164, ISBN: 978-0-444-52748-6, DOI: 10.1007/s11214-007-9202-6.
62. Pätzold M., Häusler B., Simpson R.A., Tellmann S., Mattei R., Asmar S.W., Bird M.K., **Dehant V.**, Eidel W., Imamura T., and Tyler G.L., 2007, "Venus Express Radio Science: Sounding of the Venus surface, atmosphere, and ionosphere.", *Nature, Letters*, 450, pp. 657-660, DOI: 10.1038/nature06239.
63. **Dehant V.** and **Van Hoolst T.**, 2007, "Information on interior structure of the terrestrial planets from their rotation.", in: Proc. Workshop organized in honour of Prof. J. Henrard at the occasion of his retirement, 'Rotation of celestial bodies', Namur, 1st and 2d of December 2005, pp. 1-7.
64. **Rambaux N.** and Henrard J., 2007, "The rotation of Galilean satellites.", in: Proc. Symposium

- ‘Rotation of Celestial Bodies’, Colloquium in Honor of Professor Jacques Henrard’, Namur, 1-2 December 2005, pp. 95-102.
65. Vacher P. and **Verhoeven O.**, 2007, “Modelling the electrical conductivity of iron-rich minerals for planetary applications.”, *Planet. Space Science*, 55, DOI: 10.1016/j.pss.2006.10.003.
  66. **Van Hoolst T.**, Sohl F., Holin I., **Dehant V.**, and Spohn T., 2007, “Mercury's interior structure, rotation, and tides.”, in: Mercury, ISSI workshop Bern, Switzerland, June 2006, *Space Science Reviews*, 132(2-4), pp. 203-227.
  67. Gurfil P., **Lainey V.**, and Efroimsky M., 2007, “Long-term evolution of orbits about a precessing oblate planet: 3. A semianalytical and a purely numerical approaches.”, *Celest. Mech. and Dynam. Astron.*, 99(4), pp.261-292, DOI: 10.1007/s10569-007-9099-0.
  68. Efroimsky M. and **Lainey V.**, 2007, “Physics of bodily tides in terrestrial planets and the appropriate scales of dynamical evolution.”, *J. Geophys. Res. (Planets)*, 112(E12), DOI: 10.1029/2007JE002908.
  69. Efroimsky M. and **Lainey V.**, 2007, “On the theory of bodily tides.”, in: Proc. New Trends in Astrodynamics and Applications III - An International Conference, August 16-18, 2006, AIP Conference Proceedings, 886, pp. 131-138, DOI: 10.1063/1.2710050.
  70. Bois E. and **Rambaux N.**, 2007, “On the oscillations in Mercury's obliquity.”, *Icarus*, 192(2), pp. 308-317.
  71. **Rambaux N.**, Lemaître A., and D'Hoedt S., 2007, “Coupled rotational motion of Mercury.”, *Astron. Astrophys.*, 470, pp. 741-747.
  72. **Koot L.**, de Viron O., and **Dehant V.**, 2008, “Atmospheric angular momentum time series: characterization of their internal noise and creation of a combined series.”, *J. Geodesy*, 79, 663-674.
  73. Dufey J., Lemaître A., and **Rambaux N.**, 2008, “Planetary perturbations on Mercury's libration in longitude.”, *Celest. Mech. Dyn. Astr.*, 101(1-2), pp. 141-157, DOI: 10.1007/s10569-008-9143-8.
  74. **Beuthe M.**, 2008, “Thin elastic shells with variable thickness for lithospheric flexure of one-plate planets.”, *Geophys. J. Int.*, 172(2), pp. 817-841, DOI: 10.1111/j.1365-246X.2007.03671.x, [eprint arXiv:0704:1627].
  75. **Metivier L.**, **Karatekin Ö.**, and **Dehant V.**, 2008, “The effect of the internal structure of Mars on its seasonal loading deformations.”, *Icarus*, 194(2), pp. 476-486, DOI:10.1016/j.icarus.2007.12.001.
  76. **Van Hoolst T.**, **Rambaux N.**, **Karatekin Ö.**, **Dehant V.**, and **Rivoldini A.**, 2008, “The librations, shape, and icy shell of Europa.”, *Icarus*, 195(1), pp. 386-399, DOI: 10.1016/j.icarus.2007.12.011.
  77. **Rosenblatt P.**, **Lainey V.**, **Le Maistre S.**, Marty J.C., **Dehant V.**, Pätzold M., **Van Hoolst T.**, Häusler B., 2008, “Accurate Mars Express orbit to improve the determination of the mass and ephemeris of the Martian moons.”, *Planet. Space Sci.*, 56(7), pp. 1043-1053, DOI: 10.1016/j.pss.2008.02.004.
  78. Langlais B., Leblanc F., Fouchet T., Barabash S., Breuer D., Chassefière E., Coates A., **Dehant V.**, Forget F., Lammer H., Lewis S., Lopez-Valverde M., Mandea M., Menvielle M., Pais A., Pätzold M., Read P., Sotin C., Tarits P., Vennerstrom S., Branduardi-Raymont G., Cremonese G., Merayo J.G. M., Ott T., Rème H., Trotignon J.G., and Walhund J.E., 2008, “Mars environment and magnetic orbiter model payload.”, *Experimental Astronomy*, DOI: 10.1007/s10686-008-9101-1.
  79. **Rosat S.**, **Rosenblatt P.**, **Trinh A.**, and **Dehant V.**, 2008, “Mars and Mercury rotation variations from altimetry crossover data: Feasibility study.”, *J. Geophys. Res. (Planets)*, 113(E12), CiteID E12014, DOI: 10.1029/2008JE003233.

80. **Karatekin Ö., Van Hoolst T.**, and Tokano T., **2008**, “Effect of internal gravitational coupling on Titan's non-synchronous rotation.”, *Geophys. Res. Letters*, 35, L16202, DOI: 10.1029/2008GL034744.
81. Peale S.J., Margot J.L., and **Yseboodt M.**, **2009**, “Resonant forcing of Mercury's libration in longitude.”, *Icarus*, 199, pp. 1-8, DOI: 10.1016/j.icarus.2008.09.002.
82. Pletser V., Lognonné P., Diament M., and **Dehant V.**, **2009**, “Subsurface water detection on mars by astronauts using a seismic refraction method: tests during a manned mars mission simulation.”, *Mars Acta Astr.*, DOI: 10.1016/j.actaastro.2008.07.005.
83. Pletser V., Lognonné P., Diament M., and **Dehant V.**, **2009**, “Reply to the comment of Robert E. Grimm and David E. Stillmanon ‘Subsurface water detection on Mars by astronauts using a seismic refraction method: Tests during a manned Mars simulation’”, *Mars Acta Astr.*, 64, pp. 656-657, DOI: 10.1016/j.actaastro.2008.09.007.
84. **Rivoldini A., Van Hoolst T., and Verhoeven O.**, **2009**, “The interior structure of Mercury and its core sulfur content.”, *Icarus*, 201(1), pp. 12-30, DOI: 10.1016/j.icarus.2008.12.020.
85. **Verhoeven O., Tarits P., Vacher P., Rivoldini A., and Van Hoolst T.**, **2009**, “Electrical conductivity of Mercury: implication on formation and evolution.”, *Planet. Space Sci.*, 57(3), pp. 296-305, DOI: 10.1016/j.pss.2008.11.015.
86. Langlais B., Leblanc F., Fouchet T., Barabash S., Breuer D., Chassefière E., Coates A., **Dehant V.**, Forget F., Lammer H., Lewis S., Lopez-Valverde M., Mandea M., Menaille M., Pais A., Pätzold M., Read P., Sotin C., Tarits P., Vennerstrom S., Branduardi-Raymont G., Cremonese G., Merayo J.G.M., Ott T., Rème H., Trotignon J.G., and Walhund J.E., **2009**, “Mars environment and magnetic orbiter model payload.”, *Experimental Astronomy*, DOI: 10.1007/s10686-008-9101-1, 23, pp. 761-783.
87. Marty J.C., Balmino G., Duron J., **Dehant V., Rosenblatt P., Le Maistre S., Rivoldini A., and Van Hoolst T.**, **2009**, “Martian gravity field model and its time variations.”, *Planet. Space Sci.*, 57(3), pp. 350-363, DOI: 10.1016/j.pss.2009.01.004.
88. Verhoeven O., Mocquet A., Vacher P., **Rivoldini A., Menaille M., Arrial P-A., Choblet G., Tarits P., Dehant V., and Van Hoolst T.**, **2009**, “Constraints on thermal state and composition of the Earth's lower mantle from electromagnetic impedances and seismic data.”, *J. Geophys. Res. (Planets)*, 114(B3), CiteID B03302, DOI: 10.1029/2008JB005678.
89. Blanc M., Alibert Y., André N., Atreya S., Beebe R., Benz W., Bolton S.J., Coradini A., Coustenis A., **Dehant V.**, Dougherty M., Drossart P., Fujimoto M., Grasset O., Gurvits L., Hartog P., Hussmann H., Kasaba Y., Kivelson M., Khurana K., Krupp N., Louarn P., Lunine J., McGrath M., Mimoun D., Mousis O., Oberst J., Okada T., Pappalardo R., Prieto-Ballesteros O., Prieur D., Regnier P., Roos Serote M., Sasaki S., Schubert G., Sotin C., Spilker T., Takahashi Y., Takashima T., Tosi F., Turrini D., **Van Hoolst T.**, and Zelenyi L., **2009**, “LAPLACE. A mission to Europa and the Jupiter System for ESA's Cosmic Vision Programme.”, *Experimental Astronomy*, 23(3), pp. 849-892, DOI: 10.1007/s10686-008-9127-4.
90. Leblanc F., Langlais B., Fouchet T., Barabash S., Breuer D., Chassefière E., Coates A., **Dehant V., Forget F., Lammer H., Lewis S., Lopez-Valverde M., Mandea M., Menaille M., A. Pais, Pätzold M., Read P., Sotin C., Tarits P., and Vennerstrøm S.**, **2009**, “Mars Environment and Magnetic Orbiter, science and measurement objectives.”, *Astrobiology*, 9(1), pp. 71-89, DOI: 10.1089/ast.2007.022.
91. **Pham L.B.S., Karatekin Ö., and Dehant V.**, **2009**, “Effect of Meteorite Impacts on the atmospheric evolution of Mars.”, *Astrobiology*, Special Issue on ‘Early Mars’, 9(1), pp. 45-54, DOI: 10.1089/ast.2008.0242.
92. **Dehant V., Folkner W., Renotte E., Orban D., Asmar S., Balmino G., Barriot J.P., Benoist J., Biancale R., Biele J., Budnik F., Burger S., de Viron O., Häusler B., Karatekin Ö., Le Maistre S., Lognonné P., Menaille M., Mitrovic M., Pätzold M., Rivoldini A., Rosenblatt P., Schubert G., Spohn T., Tortora P., Van Hoolst T., Witasse O., and Yseboodt M.**, **2009**,

- “Lander Radioscience for obtaining the rotation and orientation of Mars.”, *Planet. Space Sci.*, 57, pp. 1050-1067, DOI: 10.1016/j.pss.2008.08.009.
93. Lainey V., Arlot J.E., **Karatekin Ö.**, and **Van Hoolst T.**, 2009, “Strong tidal dissipation in Io and Jupiter from astrometric observations.”, *Nature*, 459(7249), pp. 957-959, DOI: 10.1038/nature08108.
  94. **Van Hoolst T.**, Rambaux N., **Karatekin Ö.**, and **Baland R.-M.**, 2009, “The effect of gravitational and pressure torques on Titan's length-of-day variations.”, *Icarus*, 200(1), pp. 256-264, DOI: 10.1016/j.icarus.2008.11.009.
  95. Bergamin L., Delva P., and **Hees A.**, 2009, “Vibrating systems in Schwarzschild spacetime: toward new experiments in gravitation?”, *Classical and Quantum Gravity* 26, CiteID: 185006, (15 p), DOI: 10.1088/0264-9381/26/18/185006.
  96. Bills B. G., Nimmo F., **Karatekin Ö.**, **Van Hoolst T.**, Rambaux N., Levrard B., and Laskar J., 2009, “Rotational dynamics of Europa.”, in: *Europa Book*, University of Arizona Press Space Science Series.
  97. Andert T.P., **Rosenblatt P.**, Pätzold M., Häusler B., **Dehant V.**, Tyler G.L., and Marty J.C., 2010, “Precise Mass Determination and the Nature of Phobos.”, *Geophys. Res. Lett.*, 37, CiteID: L09202, DOI: 10.1029/2009GL041829.
  98. Hussmann H., Choblet G., Lainey V., Matson D.L., Sotin C., Tobie G., and **Van Hoolst T.**, 2010, “Implications of Rotation, Orbital States, Energy Sources, and Heat Transport for Internal Processes in Icy Satellites.”, *Space Sci. Rev.*, DOI: DOI 10.1007/s11214-010-9636-0.
  99. Rambaux N., Castillo-Rogez J.C., Williams J.G., and **Karatekin Ö.**, 2010, “Librational response of Enceladus.”, *Geophys. Res. Lett.*, 37, 4202, DOI: 10.1029/2009GL041465.
  100. Javaux E. and **Dehant V.**, 2010, “Habitability: from stars to cells.”, *Astron. Astrophys. Rev.*, 18, pp. 383-416, DOI: 10.1007/s00159-010-0030-4.
  101. **Yseboodt M.**, Margot J.L., and Peale S., 2010, “Analytical model of the long-period forced longitude librations of Mercury.”, *Icarus*, DOI: 10.1016/j.icarus.2009.12.020, 207, pp. 536-544.
  102. **Hees A.**, Bergamin L., and Delva P., 2010, “The Motion of vibrating systems in Schwarzschild spacetime.”, *Relativity in Fundamental Astronomy: Dynamics, Reference Frames, and Data Analysis*, in: *Proc. International Astronomical Union, IAU Symposium*, Volume 261, pp. 147-151.
  103. **Hees A.** and **Pireaux S.**, 2010, “A Relativistic Motion Integrator: numerical accuracy and illustration with BepiColombo and Mars-NEXT.”, *Relativity in Fundamental Astronomy: Dynamics, Reference Frames, and Data Analysis, Proceedings of the International Astronomical Union, IAU Symposium*, Volume 261, pp. 144-146.
  104. **Rosenblatt P.** and **Dehant V.**, 2010, “Mars Geodesy and rotation.”, *Research in Astronomy and Astrophysics (RAA)*, 10(8), pp. 713-736, DOI: 10.1088/1674-4527/10/8/002.
  105. **Baland R.-M.** and **Van Hoolst T.**, 2010, “Librations of the Galilean satellites: the influence of global internal liquid layers.”, *Icarus*, 209(2), pp. 651-664, DOI: 10.1016/j.icarus.2010.04.004.
  106. Schubert G., Hussmann H., Lainey V., Matson D. L., McKinnon W. B., Sohl F., Sotin C., Tobie G., Turrini D., and **Van Hoolst T.**, 2010, “Evolution of Icy Satellites.”, *Space Sci. Rev.*, 153(1-4), pp. 447-484, DOI: 10.1007/s11214-010-9635-1.
  107. **Beuthe M.**, 2010, “East-west faults due to planetary contraction”, *Icarus*, 209, pp. 795-817, DOI:10.1016/j.icarus.2010.04.019 [eprint arXiv:1006.5818].
  108. **Koot L.**, Dumberry M., **Rivoldini A.**, de Viron O., and **Dehant V.**, 2010, “Constraints on the couplings at the core-mantle and inner core boundaries inferred from nutation observations.”, *Geophys. J. Int.*, 182, 1279-1294, DOI: 10.1111/j.1365-246X.2010.04711.x.
  109. Giesecke A., Nore C., Plunian F., **Laguerre R.**, Ribeiro A., Stefani F., Gerbeth G., Léorat J., and Guermond J.L., 2010, “Generation of axisymmetric modes in cylindrical kinematic mean-

- field dynamos of VKS type.”, *Geophysical & Astrophysical Fluid Dynamics*, 104(2), pp. 249-271, DOI: 10.1080/03091920903366303.
110. Mocquet A., **Rosenblatt P.**, **Dehant V.**, and Verhoeven O., 2011, “The deep interior of Venus, Mars, and the Earth: a brief review and the need for planetary surface-based measurements.”, *Planet. Space Sci.*, DOI: 10.1016/j.pss.2010.02.002.
  111. **Dehant V.**, **Le Maistre S.**, **Rivoldini A.**, **Yseboodt M.**, **Rosenblatt P.**, **Van Hoolst T.**, **Mitrovic M.**, **Karatekin Ö.**, Marty J.C., Chicarro A., 2011, “Revealing Mars’ deep interior: Future geodesy missions using radio links between landers, orbiters, and the Earth.”, *Planet. Space Sci.*, 57, pp. 1069-1081, DOI: 10.1016/j.pss.2010.03.014.
  112. Konopliv A.S., Asmar S.W., Folkner W.M., **Karatekin Ö.**, Nunes D.C., Smrekar S.E., Yoder C.F., Zuber M.T., 2011, “Mars High Resolution Gravity Fields from MRO, Mars Seasonal Gravity, and Other Dynamical Parameters.”, *Icarus*, 211(1), pp. 401-428, DOI: 10.1016/j.icarus.2010.10.004.
  113. **Pfyffer G.**, **Van Hoolst T.**, and **Dehant V.**, 2011, “Librations and Obliquity of Mercury from the BepiColombo radio-science and camera experiments.”, *Planet. Space Sci.*, *Planet. Space Sci.*, 59(9), pp. 848-861, DOI: 10.1016/j.pss.2011.03.017.
  114. Gowen R. and colleagues including **Karatekin Ö.**, **Dehant V.**, 2011, “Penetrators for in situ sub-surface investigations of Europa.”, *Adv. Space Res.*, 48(4), 725-742, DOI: 10.1016/j.asr.2010.06.026.
  115. **Pham L.B.S.**, **Karatekin Ö.**, and **Dehant V.**, 2011, “Effects of impacts on the atmospheric evolution: comparison between Mars, Earth and Venus.”, *Planet. Space Sci.*, 59, pp. 1087-1092, DOI: 10.1016/j.pss.2010.11.010.
  116. **Baland, R.-M.**, **Van Hoolst T.**, **Yseboodt M.**, and **Karatekin Ö.**, 2011, Titan’s Obliquity as evidence of a subsurface ocean?, *Astron. Astrophys.*, 530, A141, DOI: 10.1051/0004-6361/201116578.
  117. **Rivoldini A.**, **Van Hoolst T.**, Verhoeven O., Mocquet A., and **Dehant V.**, 2011, “Geodesy constraints on the interior structure and composition of Mars.”, *Icarus*, 213, 451-472, DOI: 10.1016/j.icarus.2011.03.024.
  118. Rambaux N., Castillo-Rogez J.C., **Dehant V.**, and Kuchynka P., 2011, “Constraining Ceres’ interior from its Rotational Motion.”, *Astron. Astrophys.*, 535, A43, DOI: 10.1051/0004-6361/201116563.
  119. **Rosenblatt P.**, 2011, “The origin of the Martian moons revisited.”, *Astron. Astrophys. Rev.*, 19(1), pp. 1-26, DOI: 10.1007/s00159-011-0044-6.
  120. Charnoz S., Crida A., Castillo-Rogez J.C., Lainey V., Dones L., **Karatekin Ö.**, Tobie G., Mathis S., Le Poncin-Lafitte C., Salmon J., 2011, “Accretion of Saturn’s mid-sized moons during the viscous spreading of young massive rings: solving the paradox of silicate-poor rings versus silicate-rich moons.”, *Icarus*, 216(2), pp. 535-550, DOI: 10.1016/j.icarus.2011.09.017.
  121. Noyelles B., **Karatekin Ö.**, and Rambaux N., 2011, “The Rotation of Mimas.”, *Astron. Astrophys.*, 536, CiteID: A61, DOI: 10.1051/0004-6361/201117558.
  122. Arridge C.S., Agnor C.B., André N., Baines K.H., Fletcher L.N., Gautier D., Hofstadter M.D., Jones G.H., Lamy L., Langevin Y., Mousis O., Nettelmann N., Russell C.T., Stallard T., Tiscareno M.S., Tobie G., Bacon A., Chaloner C., Guest M., Kemble S., Peacocke L., Achilleos N., Andert T.P., Banfield D., Barabash S., Barthelemy M., Bertucci C., Brandt P., Cecconi B., Chakrabarti S., Cheng A.F., Christensen U., Christou A., Coates A.J., Collinson G., Cooper J.F., Courtin R., Dougherty M.K., Ebert R.W., Entradas M., Fazakerley A.N., Fortney J.J., Galand M., Gustin J., Hedman M., Helled R., Henri P., Hess S., Holme R., **Karatekin Ö.**, Krupp N., Leisner J., Martin-Torres J., Masters A., Melin H., Miller S., Müller-Wodarg I., Noyelles B., Paranicas C., de Pater I., Pätzold M., Prangé R., Quémerais E., Roussos E., Rymer A.M., Sánchez-Lavega A., Saur J., Sayanagi K.M., Schenk P., Schubert G., Sergis N., Sohl F., Sittler E.C., Teanby N.A., Tellmann S., Turtle E.P., Vinatier S.,

- Wahlund J.-E., Zarka P., 2011, "Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets.", *Experimental Astronomy*, 113, DOI: 10.1007/s10686-011-9251-4.
123. **Karatekin Ö.**, de Viron O., Lambert S., **Rosenblatt P.**, **Dehant V.**, **Van Hoolst T.**, and **Le Maistre S.**, 2011, "Atmospheric angular momentum variations of Earth, Mars and Venus at seasonal time scales.", *Planetary and Space Science*, 59(10), 923-933, DOI: 10.1016/j.pss.2010.09.010.
124. Tokano T., **Van Hoolst T.**, and **Karatekin Ö.**, 2011, "Polar motion of Titan forced by the atmosphere.", *J. Geophys. Res. (Planets)*, 116(E5), CiteID: E05002, DOI: 10.1029/2010JE003758.
125. Aerts C., Briquet M., Degroote P., Thoul A., **Van Hoolst T.**, 2011, "Seismic modelling of the  $\beta$  Cep star HD 180642 (V1449 Aql).", *Astronomy and Astrophysics*, 534, A98, DOI: 10.1051/0004-6361/20117629.
126. Rambaux N., **Van Hoolst T.**, and **Karatekin Ö.**, 2011, "Librational response of Europa, Ganymede, and Callisto with an ocean for a non-keplerian orbit.", *Astronomy & Astrophysics*, 527, CiteID: A118, DOI: 10.1051/0004-6361/201015304.
127. Cottenier S., Probert M.I.J., **Van Hoolst T.**, van Speybroeck V., and Waroquier M., 2011, "Crystal structure prediction for iron as inner core material in heavy terrestrial planets.", *Earth Planet. Sci. Letters*, 312(1), 237-242, DOI: 10.1016/j.epsl.2011.09.045.
128. Huang C.L., **Dehant V.**, Liao X.H., **Van Hoolst T.**, and Rochester M.G., 2011, "On the coupling between magnetic field and nutation in a numerical integration approach.", *J. Geophys. Res.*, 116, B03403, DOI: 10.1029/2010JB007713.
129. Robert V., **De Cuyper J.-P.**, Arlot J.-E., de Decker G., Guibert J., Lainey V., Pascu D., Winter L., Zacharias N., 2011, "A new astrometric reduction of photographic plates using the DAMIAN digitizer: improving the dynamics of the Jovian system.", *Mon. Not. R. Astron. Soc.*, 415(1), 701-708, DOI: 10.1111/j.1365-2966.2011.18747.x.
130. Le Bars M., Wieczorek M.A., **Karatekin Ö.**, Cébron D., and Laneuville M., 2011, "An impact driven dynamo for the early Moon.", *Nature*, 479, 215-218, DOI: 10.1038/nature10564 and 10.1038/nature10565.
131. **Koot L.**, and Dumberry M., 2011, "Viscosity of the Earth's inner core: constraints from nutation observations.", *Earth and Planetary Science Letters*, 308, pp. 343-349, DOI: 10.1016/j.epsl.2011.06.004.
132. **Koot L.**, and de Viron O., 2011, "Atmospheric contributions to nutations and implications for the estimation of deep Earth's properties from nutation observations.", *Geophysical Journal International*, 185, pp. 1255-1265, DOI: 10.1111/j.1365-246X.2011.05026.x.
133. **Gillmann C.**, Lognonné P., and Moreira M., 2011, "Volatiles in the atmosphere of Mars: The effects of volcanism and escape constrained by isotopic data.", *Earth and Planetary Science Letters*, 303(3-4), pp. 299-309, DOI: 10.1016/j.epsl.2011.01.009.
134. Nore C., Guermond J.L., **Laguerre R.**, Léorat J., and Luddens F., 2012, "Nonlinear dynamo in a short Taylor-Couette setup.", *Physics of Fluids*, 24(9), DOI: 10.1063/1.475275.
135. Dumberry M. and **Koot L.**, 2012, "A global model of electromagnetic coupling for nutations.", *Geophys. J. Int.*, 191, 530-544, DOI: 10.1111/j.1365-246X.2012.05625.x.
136. Lamy P., Vernazza P., Groussin O., Poncy J., Martinot V., Hinglais E., Bell J., Cruikshank D., Helbert J., Marzari F., Morbidelli A., and **Rosenblatt P.**, 2012, "Trojans' Odyssey: Unveiling the early history of the Solar System.", *Experimental Astronomy*, 33(2-3), pp. 685-721, DOI: 10.1007/s10686-011-9253-2.
137. **Coyette A.**, **Van Hoolst T.**, and **Dehant V.**, 2012, "Period of the Slichter mode of Mercury and its possible observation.", *Astronomy & Astrophysics*, 543, A40, DOI: 10.1051/0004-6361/201218891.
138. **Dehant V.**, Breuer D., Claeys P., Debaille V., De Keyser J., Javaux E., Goderis S., **Karatekin Ö.**, Spohn T., Vandaele A.C., Vanhaecke F., **Van Hoolst T.**, and Wilquet V., 2012, "From

- Meteorites to evolution and habitability of planets.”, *Planet. Space Sci.*, 72(1), 3-17, DOI: 10.1016/j.pss.2012.05.018.
139. **Rosenblatt P., Bruinsma S.L., Müller-Wodarg I.C.F., Häusler B., Svedhem H., and Marty J.C., 2012**, “First ever in situ observations of Venus’ polar upper atmosphere density using the tracking data of the Venus Express Atmospheric Drag Experiment (VExADE).”, *Icarus*, Special issue: “Advances in Venus science”, Vol. 217, No 2, pp. 831-838.
  140. **Le Maistre S., Rosenblatt P., Rivoldini A., Dehant V., Marty J.C., and Karatekin Ö., 2012**, “Lander Radio science experiment with a direct link between Mars and the Earth.”, *Planet. Space Sci.*, 68(1), 105-122, DOI: 10.1016/j.pss.2011.12.020.
  141. **Dehant V., Banerdt B., Lognonné P., Grott M., Asmar S., Biele J., Breuer D., Forget F., Jaumann R., Johnson C., Knapmeyer M., Lefevre M., Mimoun D., Mocquet A., Read P., Rivoldini A., Romberg O., Schubert G., Smrekar S., Spohn T., Tortora P., Ulamec S., and Vennerstrøm S., 2012**, Future Mars geophysical observatories for understanding its internal structure, rotation, and evolution, *Planet. Space Sci.*, 68(1), 123-145, DOI: 10.1016/j.pss.2011.10.016.
  142. **Dehant V., Oberst J., Nadalini R., Schreiber U., and Rambaux N., 2012**, “Geodesy instrument package on the Moon for improving our knowledge of the Moon and the realization of reference frames.”, *Planet. Space Sci.*, 68(1), 94-104, DOI: 10.1016/j.pss.2012.02.008.
  143. **Beuthe M., Le Maistre S., Rosenblatt P., Pätzold M., and Dehant V., 2012**, “Density and lithospheric thickness of the Tharsis Province from MEX MaRS and MRO gravity data.”, *J. Geophys. Res.*, 117, E04002, 32 pages, DOI: 10.1029/2011JE003976.
  144. Oberst J., Lainey V., Le Poncin-Lafitte C., **Dehant V., Rosenblatt P., Ulamec S., Biele J., Hoffmann H., Willner K., Schreiber U., Rambaux N., Laurent P., Zakharov A., Foulon B., Gurvits L., Murchie S., Reed C., Turyshev S.G., Noyelles B., Gil J., Graziano M., Kahle R., Klein V., Pasewaldt A., Schlücht A., Spurmann J., Wählisch M., and Wickhusen K., 2012**, “GETEMME - A Mission to Explore the Martian Satellites and the Fundamentals of Solar System Physics.”, *Experimental Astronomy*, DOI 10.1007/s10686-012-9307-0.
  145. Lainey V., **Karatekin Ö., Desmars J., Charnoz S., Arlot J.-E., Emelyanov N., Le Poncin-Lafitte C., Mathis S., Remus F., Tobie G., and Zahn J.-P., 2012**, “Strong Tidal Dissipation in Saturn and Constraints on Enceladus.”, *Astrophys. J.*, 752(1), article id. 14, 19 pp., DOI: 10.1088/0004-637X/752/1/14.
  146. **Hees A., and Fuzfa A., 2012**, “Combined cosmological and Solar System constraints on chameleon mechanism.”, *Physical Review D*, 85(10), id. 103005, DOI: 10.1103/PhysRevD.85.103005.
  147. **Hees A., Lamine B., Reynaud S., Jaekel M.T., Le Poncin-Lafitte C., Füzfa A., Courty J.-M., Dehant V., Wolf P., 2012**, “Radioscience simulations in General Relativity and in alternative theories of gravity.”, *Class. Quantum Grav.*, 29(23), CiteID: 235027, DOI: 10.1088/0264-9381/29/23/235027.
  148. Bruneton J.-P., Rinaldi M., Kanfon A., **Hees A., Schrögel S., and Füzfa A., 2012**, “Fab Four: When John and George Play Gravitation and Cosmology.”, *Advances in Astronomy*, 2012, id. 430694, DOI: 10.1155/2012/430694.
  149. Baland R.-M., **Yseboodt M., and Van Hoolst T., 2012**, “Obliquity of the Galilean satellites: The influence of a global internal liquid layer.”, *Icarus*, 220(2), pp. 435-448, DOI: 10.1016/j.icarus.2012.05.020.
  150. **Van Hoolst T., Rivoldini A., Baland R.-M., and Yseboodt M., 2012**, “The effect of tides and an inner core on the forced longitudinal libration of Mercury.”, *Earth Planet. Space Sci.*, 333, pp. 83-90, DOI: 10.1016/j.epsl.2012.04.014.
  151. Rambaux N., Castillo-Rogez J., **Le Maistre S., and Rosenblatt P., 2012**, “Rotational motion of Phobos.”, *Astronomy & Astrophysics*, 548, id.A14, 11 pp., DOI: 10.1051/0004-6361/201219710.

152. **Rosenblatt P.**, and Charnoz S., 2012, “On the Formation of the Martian Moons from a circum-martian accretion disk.”, Icarus, 221(2), pp. 806-815, DOI: 10.1016/j.icarus.2012.09.009.
153. Stamenković V., **Noack L.**, Breuer D., and Spohn T., 2012, “The Influence of Pressure-dependent Viscosity on the Thermal Evolution of Super-Earths.”, Astrophys. J., 748(1), article id. 41, 22 pp., DOI: 10.1088/0004-637X/748/1/41.
154. **Noack L.**, Breuer D., and Spohn T., 2012, “Coupling the atmosphere with interior dynamics: Implications for the resurfacing of Venus.”, Icarus, 217(2), pp. 484-498, DOI: 10.1016/j.icarus.2011.08.026.
155. Leblanc F., Chassefière E., **Gillmann C.**, and Breuer D., 2012, “Mars' atmospheric 40Ar: A tracer for past crustal erosion.”, Icarus, 218(1), pp. 561-570, DOI: 10.1016/j.icarus.2012.01.006.
156. Margot J.-L., Peale S.J., Solomon S.C., Hauck S.A. II, Ghigo F.D., Jurgens R.F., **Yseboodt M.**, Giorgini J.D., Padovan S., and Campbell D.B., 2012, “Mercury's moment of inertia from spin and gravity data.”, J. Geophys. Res., 117, E00L09, DOI: 10.1029/2012JE004161.
157. **Hees A.**, Wolf P., Lamine B., Reynaud S., Jaekel M.T., Le Poncin-Lafitte C., Lainey V., and **Dehant V.**, 2012, “Testing gravitation in the solar system with radio science experiments.”, in: Proc. SF2A 2011, Eds. G. Alecian, K. Belkacem, S. Collin, R. Samadi and D. Valls-Gabaud, 653-658.
158. **Hees A.**, Bertone S., and Le Poncin-Lafitte C., 2012, “Frequency shift up to the 2-pm approximation.”, in: Proc. SF2A 2011, Eds. G. Alecian, K. Belkacem, S. Collin, R. Samadi and D. Valls-Gabaud, 145-148.
159. Grott M., Baratoux D., Hauber E., Sautter V., Mustard J., Gasnault O., Ruff S. W., Karato S.-I., Debaille V., Knapmeyer M., Sohl F., **Van Hoolst T.**, Breuer D., Morschhauser A., and Toplis M. J., 2013, “Long-Term Evolution of the Martian Crust-Mantle System;”, Space Science Reviews, 174(1-4), pp. 49-111, DOI: 10.1007/s11214-012-9948-3.
160. Lammer H., Chassefière E., **Karatekin Ö.**, Morschhauser A., Niles P.B., Mousis O., Odert P., Möstl U.V., Breuer D., **Dehant V.**, Grott M., Gröller H., Hauber E., and **Pham L.B.S.**, 2013, “Outgassing History and Escape of the Martian Atmosphere and Water Inventory.”, Space Sci. Rev., 174(1-4), pp. 113-154, DOI: 10.1007/s11214-012-9943-8.
161. Hamilton C.W., Beggan C.D., Still S., **Beuthe M.**, Lopes R.M.C., Williams D.A., Radebaugh J., and Wright W., 2013, “Spatial distribution of volcanoes on Io: Implications for tidal heating and magma ascent.”, Earth and Planetary Science Letters, 361, pp. 272-286, DOI: 10.1016/j.epsl.2012.10.032.
162. **Beuthe M.**, 2013, “Spatial patterns of tidal heating.”, Icarus, 223, pp. 308-329, DOI: 10.1016/j.icarus.2012.11.020 [eprint arXiv:1212.4630].
163. Dumberry M., **Rivoldini A.**, **Van Hoolst T.**, and **Yseboodt M.**, 2013, “The role of Mercury's core density structure on its longitudinal librations.”, Icarus 225, pp. 62 -74, DOI: 10.1016/j.icarus.2013.03.001.
164. Grasset O., Dougherty M.K., Coustenis A., Bunce E., Erd C., Titov D., Blanc M., Coates A., Drossart P., Fletcher L., Hussmann H., Jaumann R., Krupp N., Lebreton J.P., Prieto-Ballesteros O., Tortora P., Tosi F., and **Van Hoolst T.**, 2013, “JUICE: an ESA mission to orbit Ganymede and to characterise the Jupiter system.”, Planetary and Space Science, 78, 1-21, DOI: 10.1016/j.pss.2012.12.002.
165. Grott M., Baratoux D., Hauber E., Sautter V., Mustard J., Gasnault O., Ruff S.W., Karato S.I., Debaille V., Knapmeyer M., Sohl F., **Van Hoolst T.**, Breuer D., Morschhauser A., and Toplis M. J., 2013, “Long-Term Evolution of the Martian Crust-Mantle System”, Space Science Reviews, 174(1-4), pp. 49-111, DOI: 10.1007/s11214-012-9948-3.
166. **Le Maistre S.**, **Rosenblatt P.**, Rambaux N, Castillo-Rogez J.C., **Dehant V.**, and Marty J.C., 2013, “Phobos interior from librations determination using Doppler and star tracker measurements.”, Planetary and Space Science, 85, 106-122, DOI: 10.1016/j.pss.2013.06.015.

167. **Noack L.**, and Breuer D., 2013, “Interior and surface dynamics of terrestrial bodies and their implications for the habitability.”, Book chapter in: Habitability on other planets and satellites: The quest for extraterrestrial life, series: “Cellular Origin, Life in Extreme Habitats and Astrobiology”, Eds. J.-P. de Vera and F. Seckbach, Springer, ISBN: 978-94-007-6545-0, pp. 203-233.
168. **Noack L.**, and Tosi N., 2013, “High-Performance Modelling in Geodynamics.”, In: Integrated Information and Computing Systems for Natural, Spatial, and Social Sciences, Editor: C.-P. Rückemann, IGI Global, Chapter 16, pp. 323-252, DOI: 10.4018/978-1-4666-2190-9, ISBN: 978-1-4666-2190-9.
169. **Noack L.**, and Breuer D., 2013, “First- and second-order Frank-Kamenetskii approximation applied to temperature-, pressure- and stress-dependent rheology.”, *Geophys. J. Int.* 195, 27-46, DOI: 10.1093/gji/ggt248.
170. **Noack L.**, and Breuer D., 2013, “Modelling mantle dynamics with a high-order Frank-Kamenetskii approximation of the viscosity”, *Geophys. J. Int.*, 195(1), pp. 27-46, DOI: 10.1093/gji/ggt248.
171. **Van Hoolst T.**, Baland R.-M., and **Trinh A.**, 2013, “On the librations and tides of large icy satellites.”, *Icarus*, 226, 299-315, DOI: 10.1016/j.icarus.2013.05.036.
172. **Yseboodt M.**, **Rivoldini A.**, **Van Hoolst T.**, and Dumberry M., 2013, “Influence of an inner core on the long-period forced librations of Mercury.”, *Icarus*, 226(1), pp. 41-51, DOI: 10.1016/j.icarus.2013.05.011.
173. **Rivoldini A.**, and **Van Hoolst T.**, 2013, “The interior structure of Mercury constrained by the low-degree gravity field and the rotation of Mercury.”, *Earth and Planetary Science Letters*, 377, pp. 62-72, DOI: 10.1016/j.epsl.2013.07.021.
174. Kuchynka P., Folkner W.M., Konopliv A.S., Park R.S., **Le Maistre S.**, and **Dehant V.**, 2013, “New constraints on Mars rotation determined from radiometric tracking of the Opportunity Mars Exploration Rover.”, *Icarus*, 222(1), pp. 243-253, DOI: 10.1016/j.icarus.2012.11.003.
175. **Koot L.**, and M. Dumberry, 2013, “The role of the magnetic field morphology on the electromagnetic coupling for nutations.”, *Geophys. J. Int.*, 195, 200-210, doi: 10.1093/gji/ggt239.
176. **Van Hoolst T.**, and **Rivoldini A.**, 2014, “Interior Structure and Evolution of Mars.”, in: Encyclopedia of the Solar System, Chapter 18, Eds. Tilman Spohn, Doris Breuer, and Torrence V. Johnson, pp. 379-396, Elsevier Inc., 3d edition, DOI: 10.1016/B978-0-12-415845-0.00018-9.
177. **Hees A.**, Wolf P., Lamine B., Reynaud S., Jaekel M.T., Le Poncin-Lafitte C., Lainey V., Fuzfa A., and **Dehant V.**, 2014, “Radioscience simulations in General Relativity and in alternative theories of gravity.”, In: Proc. Rencontres de Moriond, on ‘Gravitational Waves and Experimental Gravity’, La Thuile, Aosta valley, Italy, 20-27 March 2011, pp. 427-438, see also ArXiv paper 1105.5927 or [http://moriond.in2p3.fr/Proceedings/2011/Moriond\\_Grav\\_2011.pdf](http://moriond.in2p3.fr/Proceedings/2011/Moriond_Grav_2011.pdf)
178. **Hees A.**, and Fuzfa A., 2014, “Cosmological and solar-system constraints on tensor-scalar theory with chameleon effect.”, In: Proc. Rencontres de Moriond, on ‘Gravitational Waves and Experimental Gravity’, La Thuile, Aosta valley, Italy, 20-27 March 2011, pp. 259-262, see also ArXiv paper 1105.5927 or [http://moriond.in2p3.fr/Proceedings/2011/Moriond\\_Grav\\_2011.pdf](http://moriond.in2p3.fr/Proceedings/2011/Moriond_Grav_2011.pdf)
179. **Noack L.**, and Breuer D., 2014, “Plate tectonics on rocky exoplanets: Influence of initial conditions and rheology.”, *Planetary and Space Science*, special issue ‘Planetary evolution and life’, 98, pp. 41-49, DOI: 10.1016/j.pss.2013.06.020.
180. **Noack L.**, Godolt M., von Paris P., Plesa A.-C., Stracke B., Breuer D., and Rauer H., 2014, “Can the interior structure influence the habitability of a rocky planet?”, *Planetary and Space Science*, special issue ‘Planetary evolution and life’, 98, pp. 14-29, DOI: 10.1016/j.pss.2014.01.003.

181. Tajeddine R., Rambaux N., Lainey V., Charnoz S., Richard A., **Rivoldini A.**, and Noyelles B., **2014**, “Constraints on Mimas’ interior from Cassini ISS libration measurements.”, *Science*, 346(6207), pp. 322-324, DOI: 10.1126/science.1255299.
182. **Dehant V.**, and **Van Hoolst T.**, **2014**, “Rotation of terrestrial planets.”, in: *Encyclopedia of the Solar System*, Chapter 8, Eds. Tilman Spohn, Doris Breuer, and Torrence V. Johnson, pp. 159-184, Elsevier Inc., 3d edition, DOI: 10.1016/B978-0-12-415845-0.00018-9.
183. Banerdt B., **Dehant V.**, Grimm R., Grott M., Lognonné P., and Smrekar S., **2014**, “Probing the Interiors of Planets with Geophysical Tools.”, in: *Encyclopedia of the Solar System*, chapter 55, Eds. Tilman Spohn, Doris Breuer, and Torrence V. Johnson, Elsevier Inc., 3d edition, DOI: 10.1016/B978-0-12-415845-0.00018-9.
184. Pätzold M., Andert T., Jacobson R., **Rosenblatt P.**, and **Dehant V.**, **2014**, “Phobos: Observed bulk properties.”, *Planetary and Space Science*, 102, pp. 86-94, DOI: 10.1016/j.pss.2014.01.004.
185. Witasse O., Duxbury T., Chicarro A., Altobelli N., Andert T., Aronica A., Barabash S., Bertaux J.-L., Bibring J.-P., Cardesin-Moinelo A., Cichetti A., Companys V., **Dehant V.**, Denis M., Formisano V., Futaana Y., Giuranna M., Gondet B., Heather D., Hoffmann H., Holmström M., Manaud N., Martin P., Matz K.-D., Montmessin F., Morley T., Mueller M., Neukum G., Oberst J., Orosei R., Pätzold M., Picardi G., Pischel R., Plaut J. J., Reberac A., Pardo Voss P., Roatsch T., **Rosenblatt P.**, Remus S., Schmedemann N., Willner K., Zegers T., **2014**, “Mars Express investigations of Phobos and Deimos.”, *Planetary and Space Science*, 102, pp. 18-34, DOI: 10.1016/j.pss.2013.08.002.
186. Kuchynka P., Folkner W.M., Konopliv A.S., Park R.S., **Le Maistre S.**, and **Dehant V.**, **2014**, “New constraints on Mars rotation determined from radiometric tracking of the Opportunity Mars Exploration Rover.”, *Icarus*, 229, pp. 340-347, DOI: 10.1016/j.icarus.2013.11.015.
187. Liliensten J., Coates A.J., **Dehant V.**, Dudok de Wit T., Horne R.B., Leblanc F., Luhmann J., Woodfield E., and Barthélemy M., **2014**, “What characterizes planetary space weather?”, *Astron. Astrophys. Rev.*, 22, Id. 79, 39 pages, DOI: 10.1007/s00159-014-0079-6.
188. Vu T.H., **Gloesener E.**, Choukroun M., Ibourichene A., and Hodyss R., **2014**, “Experimental study on the effect of ammonia on the phase behavior of tetrahydrofuran clathrates.”, *J. Phys. Chem. B*, 118(47), pp. 13,371-13,377, DOI: 10.1021/jp5042487.
189. Baland R.-M., Tobie G., Lefevre, A., **Van Hoolst T.**, **2014**, “Titan’s internal structure inferred from its gravity field, shape, and rotation state.”, *Icarus*, 237, pp. 29-41, DOI: 10.1016/j.icarus.2014.04.007.
190. **Coyette A.**, and **Van Hoolst T.**, **2014**, “Slichter modes of large icy satellites.”, *Icarus*, 231, pp. 287-299, DOI: 10.1016/j.icarus.2013.11.024.
191. Robert V., Lainey V., Pascu D., Arlot J.-E., **De Cuyper J.-P.**, **Dehant V.**, and Thuillot W., **2014**, “Astrometric observations of Phobos and Deimos during the 1971 opposition of Mars.”, *Astronomy & Astrophysics*, 572, Id. A104, 4 pages, DOI: 10.1051/0004-6361/201424384.
192. Rauer H., Catala C., Aerts C., Appourchaux T., Benz W., Brandeker A., Christensen-Dalsgaard J., Deleuil M., Gizon L., Goupil M.-J., Güdel M., Janot-Pacheco E., Mas-Hesse M., Pagano I., Piotto G., Pollacco D., Santos C., Smith A., Suárez J.-C., Szabó R., Udry S., Adibekyan V., Alibert Y., Almenara J.-M., Amaro-Seoane P., Ammer-von Eiff M., Asplund M., Antonello E., Barnes S., Baudin F., Belkacem K., Bergemann M., Bihain G., Birch A. C., Bonfils X., Boisse I., Bonomo A. S., Borsa F., Brandão I. M., Brocato E., Brun S., Burleigh M., Burston R., Cabrera J., Cassisi S., Chaplin W., Charpinet S., Chiappini C., Church R. P., Csizmadia Sz., Cunha M., Damasso M., Davies M. B., Deeg H. J., Díaz R. F., Dreizler S., Dreyer C., Eggenberger P., Ehrenreich D., Eigmüller P., Erikson A., Farmer R., Feltzing S., Oliveira Fialho F. de, Figueira P., Forveille T., Fridlund M., García R. A., Giommi P., Giuffrida G., Godolt M., Gomes da Silva J., Granzer T., Grenfell J. L., Grottsch-Noels A., Günther E., Haswell C. A., Hatzes A. P., Hébrard G., Hekker S., Helled R., Heng K., Jenkins J. M., Johansen A., Khodachenko M. L., Kislyakova K. G., Kley W., Kolb U., Krivova N.,

- Kupka F., Lammer H., Lanza A. F., Lebreton Y., Magrin D., Marcos-Arenal P., Marrese P. M., Marques J. P., Martins J., Mathis S., Mathur S., Messina S., Miglio A., Montalban J., Montalto M., Monteiro M. J. P. F. G., Moradi H., Moravveji E., Mordasini C., Morel T., Mortier A., Nascimbeni V., Nelson R. P., Nielsen M. B., **Noack L.**, Norton A. J., Ofir A., Oshagh M., Ouazzani R.-M., Pápics P., Parro V. C., Petit P., Plez B., Poretti E., Quirrenbach A., Ragazzoni R., Raimondo G., Rainer M., Reese D. R., Redmer R., Reffert S., Rojas-Ayala B., Roxburgh I. W., Salmon S., Santerne A., Schneider J., Schou J., Schuh S., Schunker H., Silva-Valio A., Silvotti R., Skillen I., Snellen I., Sohl F., Sousa S. G., Sozzetti A., Stello D., Strassmeier K. G., Svanda M., Szabó Gy. M., Tkachenko A., Valencia D., Van Grootel V., Vauclair S. D., Ventura P., Wagner F. W., Walton N. A., Weingrill J., Werner S. C., Wheatley P. J., and Zwintz K., **2014**, “The PLATO 2.0 mission.”, *Experimental Astronomy*, 38(1-2), pp. 249-330, DOI: 10.1007/s10686-014-9383-4.
193. **Gillmann C.** and Tackley P., **2014**, “Atmosphere/mantle coupling and feedbacks on Venus.”, *Journal of Geophysical Research: Planets*, 119(6), pp. 1189-1217, DOI: 10.1002/2013JE004505.
194. **Hees A.**, Folkner W.M., Jacobson R.A., and Park R.S., **2014**, “Constraints on modified Newtonian dynamics theories from radio tracking data of the Cassini spacecraft.”, *Physical Review D*, 89(10), Id. 102002, DOI: 10.1103/PhysRevD.89.102002.
195. **Hees A.**, Bertone S., and Le Poncin-Lafitte C., **2014**, “Relativistic formulation of coordinate light time, Doppler, and astrometric observables up to the second post-Minkowskian order.”, *Physical Review D*, 89(6), Id. 064045, DOI: 10.1103/PhysRevD.89.064045.
196. Lorenz R.D., Kirk R.L., Hayes A.G., Anderson Y.Z., Lunine J.I., Tokano T., Turtle E.P., Malaska M.J., Soderblom J.M., Lucas A., **Karatekin Ö.**, and Wall S.D., **2014**, “A radar map of Titan Seas: Tidal dissipation and ocean mixing through the throat of Kraken.”, *Icarus*, 237, pp. 9-15, DOI: 10.1016/j.icarus.2014.04.005.
197. **Noack L.**, Godolt M., von Paris P., Plesa A.-C., Stracke B., Breuer D., and Rauer H., **2014**, “Constraints on planetary habitability from interior modeling”, *Planetary and Space Science*, special issue ‘Planetary evolution and life’, 98, 14-29, DOI: 10.1016/j.pss.2014.01.003.
198. Tokano T., Lorenz R.D., and **Van Hoolst T.**, **2014**, “Numerical simulation of tides and oceanic angular momentum of Titan’s hydrocarbon seas.”, *Icarus* 242, 188-201.
199. **Van Hoolst T.**, **2014**, “The libration and interior structure of large icy satellites and Mercury.”, in: Z. Knezevic, and A. Lemaître (Eds.), *Complex Planetary Systems*, Proceedings IAU Symposium No. 310, pp. 1-8.
200. **Yseboodt M.**, and **Van Hoolst T.**, **2014**, “The long-period forced librations of Titan.”, in: Z. Knezevic, and A. Lemaître (Eds.), *Complex Planetary Systems*, Proceedings IAU Symposium No. 310, pp. 25-28.
201. Grebowsky J., Fast K., Talaat E., Combi M., Crary F., England S., Ma Y., Mendillo M., **Rosenblatt P.**, Seki K., Stevens M., and Withers P., **2014**, “Science Enhancements by the MAVEN Participating Scientists.”, *Space Science Reviews*, DOI: 10.1007/s11214-014-0080-4.
202. Arridge C.S., Achilleos N., Agarwal J., Agnor C. B., Ambrosi R., André N., Badman S. V., Baines K., Banfield D., Barthélémy M., Bisi M.M., Blum J., Bocanegra-Bahamon T., Bonfond B., Bracken C., Brandt P., Briand C., Briois C., Brooks S., Castillo-Rogez J., Cavalie T., Christophe B., Coates A.J., Collinson G., Cooper J.F., Costa-Sitja M., Courtin R., Daglis I.A., de Pater I., Desai M., Dirkx D., Dougherty M.K., Ebert R.W., Filacchione G., Fletcher L.N., Fortney J., Gerth I., Grassi D., Grodent D., Grün E., Gustin J., Hedman M., Helled R., Henri P., Hess S., Hillier J.K., Hofstadter M.H., Holme R., Horanyi M., Hospodarsky G., Hsu S., Irwin P., Jackman C.M., **Karatekin Ö.**, Kempf S., Khalisi E., Konstantinidis K., Krüger H., Kurth W.S., Labrianidis C., Lainey V., Lamy L.L., Laneuville M., Lucchesi D., Luntzer A., MacArthur J., Maier A., Masters A., McKenna-Lawlor S., Melin H., Milillo A., Moragas-Klostermeyer G., Morschhauser A., Moses J.I., Mousis O., Nettelmann N., Neubauer F.M.,

- Nordheim T., Noyelles B., Orton G.S., Owens M., Peron R., Plainaki C., Postberg F., Rambaux N., Rutherford K., Reynaud S., Roussos E., Russell C.T., Rymer A.M., Sallantin R., Sánchez-Lavega A., Santolik O., Saur J., Sayanagi K.M., Schenk P., Schubert J., Sergis N., Sittler E.C., Smith A., Spahn F., Srama R., Stallard T., Sterken V., Sternovsky Z., Tiscareno M., Tobie G., Tosi F., Trieloff M., Turrini D., Turtle E.P., Vinatier S., Wilson R., and Zarka P., **2014**, “The science case for an orbital mission to Uranus: Exploring the origins and evolution of ice giant planets.”, *Planetary and Space Science*, 104, pp. 122-140, DOI: 10.1016/j.pss.2014.08.009.
203. **Zhu P.**, van Ruymbeke M., **Karatekin Ö.**, Noël J.-P., Thuillier G., Dewitte S., Chevalier A., Conscience C., Janssen E., Meftah M., and Irbah A., **2014**, “A high dynamic radiation measurements instrument: the Bolometric Oscillation Sensor (BOS).”, *Geosci. Instrum. Method. Data Syst. Discuss.*, 4, 627-651, DOI:10.5194/gid-4-627-2014.
204. **Van Hove B.**, **Karatekin Ö.**, Chazot O., and Lacor C., **2015**, “Observing the Martian Atmosphere using Entry Probe Flight Instrumentation.”, in: *Review of the VKI Doctoral Research 2013-2014*, 13 March 2013, Sint-Genesius-Rode, Belgium, in print ISBN 978-2-8716-060-7, Ed. T. Magin, pp. 263-274.
205. Dumberry M., and **Rivoldini A.**, **2015**, “Mercury’s inner core size and core-crystallisation regime.”, *Icarus*, 248(3), pp. 254-268, DOI: 10.1016/j.icarus.2014.10.038.
206. **Beuthe M.**, **2015**, “Tides on Europa: The membrane paradigm.”, *Icarus*, 248, pp. 109-134, DOI: 10.1016/j.icarus.2014.10.027.
207. **Van Hoolst T.**, **2015**, “The rotation of the terrestrial planets.”, *Treatise on Geophysics*, Vol.10: Planets and Moons, 2nd edition, Ed. Gerald Schubert, Section 10.04, ISBN: 9780444538024.
208. **Dehant V.**, and Mathews P.M., **2015**, “Earth Rotation Variations.”, *Treatise on Geophysics*, 2nd edition, Ed. Gerald Schubert, Volume 3 Geodesy, Section 3.10, ISBN: 9780444538024.
209. **Noack L.**, **Rivoldini A.**, and **Van Hoolst T.**, **2015**, “CHIC – Coupling Habitability, Interior and Crust: A new Code for Modeling the Thermal Evolution of Planets and Moons.”, in: *Conference paper at INFOCOMP 2015*, 21-26 June 2015, Brussels, Belgium, ISSN 2308-3484, Copyright (c) IARIA, ISBN 978-1-61208-416-9, pp. 84-90.
210. Tosi N., Stein C., **Noack L.**, Huettig C., Maierova P., Samuel H., Davies D.R., Wilson C.R., Kramer S.C., Thieulot C., Glerum A., Fraters M., Spakman W., Rozel A., and Tackley P.J., **2015**, “A community benchmark for viscoplastic thermal convection in a 2-D square box.”, *Geochem. Geophys. Geosyst.*, 16, 2175-2196, DOI:10.1002/2015GC005807.
211. **Noack L.**, Verseux C., Serrano P., Musilova M., Nauny P., Samuels T., Schwendner P., Simoncini E., and Stevens A., **2015**, “Astrobiology from Early-Career Scientists’ Perspective.”, *International Journal of Astrobiology*, Cambridge University Press, 14(04), 533-535, DOI: 10.1017/S1473550415000233.
212. **Zhu P.**, van Ruymbeke M., **Karatekin Ö.**, Noël J.-P., Thuillier G., Dewitte S., Chevalier A., Conscience C., Janssen E., Meftah M., and Irbah A., **2015**, “A high dynamic radiation measurement instrument: the Bolometric Oscillation Sensor (BOS).”, *Geoscientific Instrumentation, Methods and Data Systems*, 4(1), pp.89-98, DOI: 10.5194/gi-4-89-2015.
213. **Beuthe M.**, **2015**, Tidal Love numbers of membrane worlds: Europa, Titan, and Co., *Icarus* 258, 239-266, DOI: 10.1016/j.icarus.2015.06.008.
214. Cook-Hallett C., Barnes J., Kattenhorn S., Hurford T., Radebaugh J., Stiles B., and **Beuthe M.**, **2015**, “Global Contraction/Expansion and Polar Lithospheric Thinning on Titan from Patterns of Tectonism.”, *J. Geophys. Res.*, 120, 1220-1236, DOI: 10.1002/2014JE004645.
215. Samuels T., **Noack L.**, Verseux C., and Serrano P., **2015**, “A new network for astrobiology in Europe.”, *Astronomy and Geophysics*, 56(2), 2.15-2.17, DOI: 10.1093/astrogeo/atv060, 2015.
216. Hees A., Bailey Q.G., Le Poncin-Lafitte C., Bourgois A., **Rivoldini A.**, Lamine B., Meynadier F., Guerlin C., and Wolf P., **2015**, “Testing Lorentz symmetry with planetary orbital dynamics.”, *Physical Review D*, 2015,10.1103/PhysRevD.92.064049.

217. Grebowsky J., Fast K., Talaat E., Combi M., Crary F., England S., Ma Y., Mendillo M., **Rosenblatt P.**, Seki K., Stevens M., and Withers P., **2015**, “Science Enhancements by the MAVEN Participating Scientists.”, Space Science Reviews, Vol. 195, issue 1-4, pp. 319-355, 2015.
218. Vandaele A. C., Neefs E., Drummond R., Thomas I. R., Daerden F., Lopez-Moreno J.-J., Rodriguez J., Patel M. R., Bellucci G., Allen M., Altieri F., Bolsée D., Clancy T., Delanoye S., Depiesse C., Cloutis E., Fedorova A., Formisano V., Funke B., Fussen D., Geminale A., Gérard J.-C., Giuranna M., Ignatiev N., Kaminski J., **Karatekin O.**, Lefèvre F., López-Puertas M., López-Valverde M., Mahieux A., McConnell J., Mumma M., Neary L., Renotte E., Ristic B., Robert S., Smith M., Trokhimovsky S., Vander Auwera J., Villanueva G., Whiteway J., Wilquet V., and Wolff M., **2015**, “Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission.”, Planetary and Space Science, 119, 233-249, DOI: 10.1016/j.pss.2015.10.003.
219. Robert V., Lainey V., Pascu D., Pasewaldt A., Arlot J.-E., **De Cuyper J.-P.**, **Dehant V.**, and Thuillot W., **2015**, “A new astrometric measurement and reduction of USNO photographic observations of Phobos and Deimos: 1967–1997.”, Astronomy & Astrophysics, 582, Id. A36, 8 pages, DOI: 10.1051/0004-6361/201526977.
220. **Hees A.**, Lamine B., Reynaud S., Jaekel M.T., Le Poncin-Lafitte C., Lainey V., Füzfa A., Courty J.M., **Dehant V.**, and Wolf P., **2015**, “Simulations of solar system observations in alternative theories of gravity.”, in: Proc. 13<sup>th</sup> Marcell Grossmann Meeting on ‘on Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories’, July 1-7, 2012, Stockholm, The Thirteenth Marcel Grossmann Meeting (World Scientific, 2015) pp. 2357-2359, DOI: 10.1142/9789814623995\_0440, see also arXiv:1301.1658.
221. **Hees A.**, Füzfa A., **2015**, “Can the Chameleon Mechanism Explain Cosmic Acceleration, while Satisfying Solar System Constraints?”, in: Proc. 13<sup>th</sup> Marcell Grossmann Meeting on ‘on Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories’, July 1-7, 2012, Stockholm, The Thirteenth Marcel Grossmann Meeting (World Scientific, 2015) pp. 1140-1142, DOI: 10.1142/9789814623995\_0102.
222. **Baland R.M.**, **Yseboodth M.**, and **Van Hoolst T.**, **2016**, “The obliquity of Enceladus”, Icarus, 268, pp. 12-31, DOI: 10.1016/j.icarus.2015.11.039.
223. **Beuthe M.**, **2016**, “Crustal control of diffipartive ocean tides in Enceladus and other icy moons”, Icarus, 280, pp. 278-299, DOI: 10.1016/j.icarus.2016.08.009.
224. **Beuthe M.**, **Rivoldini A.**, and **Trinh A.**, **2016**, “Enceladus’s and Dione’s floating ice shells supported by minimum stress isostasy”, Geophysical Research Letters 43, 10088-10096, DOI: 10.1002/2016GL070650
225. Cadek O., Tobie G., **Van Hoolst T.**, Massé M., Choblet G., Lefèvre A., Mitri G. **Baland R.M.**, **2016**, “Enceladus’s internal ocean and ice shell constrained from Cassini gravity shape, and libration data”, Geophysical Research Letters, 43 (11), pp. 5653-5660, DOI: 10.1002/2016GL068634.
226. Caporali A., **Bruyninx C.**, Fernandes R., Ganas, A., Kenyeres A., Lidberg M., Stangl G., Holger S., Zurutuza J., **2016**, “Stress drop at the Kephalonia Transform Zone estimated from the 2014 seismic sequence”, Tectonophysics, Vol. 666, pp. 164-172, DOI: 10.1016/j.tecto.2015.11.004.
227. Cockell C.S., Bush T., Bryce C., Direito S., Fox-Powell M., Harrison J.P., Lammer H., Landenmark H., Martin-Torres J., Nicholson N., **Noack L.**, O’Malley-James J., Payler S.J., Rushby A., Samuels T., Schwendner P., and Zorzano M.P., **2016**, “Habitability: A Review.”, Astrobiology, 16(1), pp. 89-117, DOI: 10.1089/ast.2015.1295.
228. **Coyette A.**, **Van Hoolst T.**, **Baland R.M.**, and Tokano T., **2016**, “Modeling the polar motion of Titan”, Icarus 265, pp. 1-28, DOI: 10.1016/j.icarus.2015.10.015.

229. Vincent D., **Karatekin Ö.**, Vallaeys V., Hayes A.G., Mastrogiuseppe M., Notarnicola C., **Dehant V.**, and Deleersnijder E., **2016**, “Numerical study of tides in Ontario Lacus, a hydrocarbon lake on the surface of the Saturnian moon Titan.”, Ocean Dynamics, DOI: 10.1007/s10236-016-0926-2.
230. **Baland, R.-M.**, **Yseboodt, M.**, and **Van Hoolst, T.**, **2016**, “The obliquity of Enceladus”, Icarus, 268, pp. 12-31, DOI: 10.1016/j.icarus.2015.11.039.
231. **Pham L. B. S.**, and **Karatekin Ö.**, **2016**, “Scenarios of atmospheric mass evolution on Mars influenced by asteroid and comet impacts since the late Noachian.”, Planetary and Space Science, 125, pp. 1-11, DOI: 10.1016/j.pss.2015.09.022.
232. Le Gall A., Malaska M. J., Lorenz R. D., Janssen M. A., Tokano T., Hayes A. G., Mastrogiuseppe M., Lunine J. I., Veyssiére G., Encrenaz P., **Karatekin Ö.**, **2016**, “Composition, seasonal change, and bathymetry of Ligeia Mare, Titan, derived from its microwave thermal emission.”, Journal of Geophysical Research: Planets, 121(2), pp. 233-251, DOI: 10.1002/2015JE004920
233. **Gillmann C.**, Golabek G.J., and Tackley P.J., **2016**, “Effect of a single large impact on the coupled atmosphere-interior evolution of Venus.”, Icarus, 268, pp. 295-312, DOI: 10.1016/j.icarus.2015.12.024.
234. **Noack L.**, Hoening D., Rivoldini A., Heistracher C., Zimov N., Lammer H., **Van Hoolst T.**, and Bredehoeft J.H., **2016**, “Water-rich planets: how habitable is a water layer deeper than on Earth?”, Icarus, 277, 215-236, DOI: 10.1016/j.icarus.2016.05.009.
235. Michel P., Cheng A., Küppers M., Pravec P., Blum J., Delbo M., Green S.F., **Rosenblatt P.**, Tsiganis K., Vincent J.B., Biele J., Ciarletti V., Hérique A., Ulamec S., Carnelli I., Galvez A., Benner L., Naidu S.P., Barnouin O.S., Richardson D.C., Rivkin A., Scheirich P., Moskovitz N., Thirouin A., Schwartz S.R., Campo Bagatin A., Yu Y., **2016**, “Science case for the Asteroid Impact Mission (AIM): a component of the Asteroid Impact & Deflection Assessment (AIDA) mission.”, Advances in Space Research, 57(12), pp. 2529-2547, DOI: 10.1016/j.asr.2016.03.031.
236. Grossir G., **Van Hove B.**, Paris S., Rambaud P., and Chazot O., **2016**, “Free-stream static pressure measurements in the Longshot hypersonic wind tunnel and sensitivity analysis.”, Experiments in Fluids, 57(5), article Id. #64, 13 p, DOI: 10.1007/s00348-016-2137-5.
237. Cortesi A.F., Congedo P.M., Magin T.E., **Van Hove B.**, and **Karatekin Ö.**, **2016**, “Rebuilding freestream atmospheric conditions using surface pressure and heat flux data.”, 8th AIAA Atmospheric and Space Environments Conference, 2016, DOI: 10.2514/6.2016-4196.
238. **Van Hoolst T.**, **Baland R.M.**, and **Trinh A.**, **2016**, “The diurnal libration and interior structure of Enceladus.”, Icarus, 277, 311-318, DOI: 10.1016/j.icarus.2016.05.025.
239. Domagal-Goldman S.D., Wright K.E., Adamala K., Antonio M., de la Rubia L.A., Bond, L. Dartnell, A. Goldman, I. Lima, K. Lynch, M.-E. Naud, K. Singer, X. Abrevaya, R. Anderson J., Arney G., Atri D., Azua-Bustos A., Bowman J., Brazelton W., Brennecka G., Carns R., Chopra A., Colangelo-Lillis J., Crockett C., DeMarines J., Frank E., Frantz C., de la Fuente, D. Galante, J. Glass, D. Gleeson, C. Glein, C. Goldblatt, R. Horak, L. Horodyskyj E., Kacar B., Kereszturi A., Knowles E., Mayeur P., McGlynn S., Miguel Y., Montgomery M., Neish C., **Noack L.**, Rugheimer S., Stueken E., Tamez-Hidalgo P., Walker S.I., **2016**, “Astrobiology Primer 2.0.”, Astrobiology, 16(8), pp. 561-653, DOI:10.1089/ast.2015.1460.
240. Pätzold M., Häusler B., Tyler G.L., Andert T., Asmar S.W., Bird M.K., **Dehant V.**, Hinson D.P., **Rosenblatt P.**, Simpson R.A., Tellmann S., Withers P., **Beuthe M.**, A.I. Efimov, Hahn M., Kahan D., **Le Maistre S.**, Oschlisniok J., Peter K., Remus S., **2016**, “Mars Express 10 years at Mars: Observations by the Mars Express Radio Science Experiment (MaRS).”, Planetary and Space Science, 127, pp. 44-90, DOI: 10.1016/j.pss.2016.02.013.
241. **Dehant V.**, Asael D., **Baland R.M.**, Baludikay B.K., Beghin J., **Beuthe M.**, Breuer D., Chernonozhkin S., Claeys Ph., Cornet Y., Cornet L., **Coyette A.**, Delvigne C., **Deproot M.H.**, De WInter N., Duchemin C., Debaille V., El Atrassi F., François C., De Keyser J.,

- Gillmann C., Glocser E.,** Goderis S., Hidaka Y., Höning D., Huber M., Hublet G., Javaux E., **Karatekin Ö.,** Kodolanyi J., Lobo LR., Maes L., Maggiolo R., Mattielli N., Maurice M., McKibbin S., Morschhauser A., Neumann W., **Noack L., Pham L.B.S.,** Pittarello L., Plesa A.C., **Rivoldini A.,** Robert S., **Rosenblatt P.,** Spohn T., Storme J-Y., Tosi N., **Trinh A.,** Valdes M., Vandaele A.C., Vanhaecke F., **Van Hoolst T.,** Van Roosbroek N., Wilquet V., and **Yseboodt M., 2016,** “PLANET TOPERS: Planets, Tracing the Transfer, Origin, Preservation, and Evolution of their ReservoirS.”, *Origins of Life and Evolution of Biospheres*, 46(4), pp. 369-384, DOI: 10.1007/s11084-016-9488-z.
242. **Rosenblatt P.,** Charnoz S., Dunseath K.M., Terao-Dunseath M., **Trinh A.,** Hyodo R., Genda H., and Toupin S., **2016,** “Accretion of Phobos and Deimos in an extended debris disc stirred by transient moons.”, *Nature Geoscience*, 9(8), pp. 581-583, DOI: 10.1038/ngeo2742.
243. Čadek O., Tobie G., **Van Hoolst T.,** Massé M., Choblet G., Lefèvre A., Mitri G., **Baland R.M.,** Běhouková M., Bourgeois O., and **Trinh A., 2016,** “Enceladus’s internal ocean and ice shell constrained from Cassini gravity.”, shape, and libration data.”, *Geophysical Research Letters*, 43(11), pp. 5653-5660, DOI: 10.1002/2016GL068634.
244. Duev D.A., Pogrebenko S.V., Cimò G., Molera Calvés G., Bocanegra Bahamón T.M., Gurvits L.I., Kettenis M.M., Kania J., Tudose V., **Rosenblatt P.,** Marty J.-C., Lainey V., de Vicente P., Quick J., Nickola M., Neidhardt A., Kronschnabl G., Ploetz C., Haas R., Lindqvist M., Orlati A., Ipatov A.V., Kharinov M.A., Mikhailov A.G., Lovell J.E.J., McCallum J.N., Stevens J., Gulyaev S.A., Natush T., Weston S., Wang W.H., Xia B., Yang W.J., Hao L.-F., Kallunki J., and Witasse O., **2016,** “Planetary Radio Interferometry and Doppler Experiment (PRIDE) technique: A test case of the Mars Express Phobos fly-by.”, *Astronomy & Astrophysics*, 593, id. A34, 10 pp, DOI: 10.1051/0004-6361/201628869.
245. **Zhu P.,** Wild M., **van Ruymbeke M.,** Thuillier G., Meftah M., and **Karatekin Ö., 2016,** “Inter annual variation of global net radiation flux as measured from space.”, *J. Geophys. Res.*, 121(12), pp. 6877-6891, DOI: 10.1002/2015JD024112, 2016.
246. Keresztsuri A., and **Noack L., 2016,** “Review on the role of planetary factors on habitability.”, *Origins of Life and Evolution of Biospheres*, 46(4), pp. 473-486, DOI: 10.1007/s11084-016-9514-1.
247. Domagal-Goldman S.D., Wright K.E., Adamala K., Antonio M., de la Rubia L.A., Bond J., Dartnell L., Goldman A., Lima I., Lynch K., Naud M.-E., Singer K., Abrevaya X., Anderson R., Arney G., Atri D., Azua-Bustos A., Bowman J., Brazelton W., Brennecke G., Carns R., Chopra A., Colangelo-Lillis J., Crockett C., DeMarines J., Frank E., Frantz C., de la Fuente E., Galante D., Glass J., Gleeson D., Glein C., Goldblatt C., Horak R., Horodyskyj L., Kacar B., Keresztsuri A., Knowles E., Mayeur P., McGlynn S., Miguel Y., Montgomery M., Neish C., **Noack L.,** Rugheimer S., Stueken E., Tamez-Hidalgo P., and Walker S.I., **2016,** “Astrobiology Primer 2.0.”, *Astrobiology*, 16(8), pp. 561-653, DOI: 10.1089/ast.2015.1460.
248. **Beuthe M., 2016,** “Crustal control of dissipative ocean tides in Enceladus and other icy moons.”, *Icarus*, 280, pp. 278-299, DOI: 10.1016/j.icarus.2016.08.009.
249. **Beuthe M., Rivoldini A.,** and **Trinh A.., 2016,** “Enceladus’s and Dione’s floating ice shells supported by minimum stress isostasy.”, *Geophysical Research Letters* 43, 10088-10096, DOI: 10.1002/2016GL070650.
250. **Rosenblatt P.,** Charnoz S., Dunseath K.M., Terao-Dunseath M., **Trinh A.,** Hyodo R., Genda H., Toupin S., **2016,** “Accretion of Phobos and Deimos in an extended debris disc stirred by transient moons.”, *Nature Geoscience*, DOI 10.1038/NGEO2742, 2016.
251. Robert V., Pascu D., Lainey V., Arlot J.-E., **De Cuyper J.-P., Dehant V.,** and Thuillot W., **2016,** “New astrometric measurement and reduction of USNO photographic observations of the main Saturnian satellites: 1974–1998.”, *Astr. Astrophys.* 596, A37, DOI: 10.1051/0004-6361/201629807.

252. **Noack L., Rivoldini A., and Van Hoolst T.**, 2016, “Modeling the Evolution of Terrestrial and Water-rich Planets and Moons.”, International Journal On Advances in Systems and Measurements, 9(1/2), pp. 66-76, 2016
253. **Noack L.**, Höning D., **Rivoldini A.**, Heistracher C., Zimov N., Journaux B., Lammer H., **Van Hoolst T.**, and Bredehofft J.H., 2016, “Water-rich planets: how habitable is a water layer deeper than on Earth?”, Icarus, 277, pp. 215-236.
254. Cockell C.S., Bush T., Bryce C., Direito S., Fox-Powell M., Harrison J.P., Lammer H., Landenmark H., Martin-Torres J., Nicholson N., **Noack L.**, O’Malley-James J., Payler S.J., Rushby A., Samuels T., Schwendner P., Wadsworth J., Zorzano M.P., 2016, “Habitability: A Review.”, Astrobiology, 16(1), pp. 89-117.
255. Panning M.P., Lognonné P., Banerdt W.B., Garcia R., Golombek M., Kedar S., Knapmeyer-Endrun B., Mocquet A., Teanby N.A., Tromp J., Weber R., Beucler E., Blanchette-Guertin J.-F., Bozdağ E., Drilleau M., Gudkova T., Khan A., Lekić V., Murdoch N., Plesa A.-C., **Rivoldini A.**, Schmerr N., Ruan Y., Verhoeven O., Gao C., Christensen U., Clinton J., **Dehant V.**, Giardini D., Mimoun D., Pike W.T., Smrekar S., Wieczorek M., Knapmeyer M., Wookey J., 2016, “Planned Products of the Mars Structure Service for the InSight Mission to Mars.”, Space Sci. Rev., DOI: 10.1007/s11214-016-0317-5.
256. **Rekier J.**, Füzfa A., and Cordero-Carrión I., 2016, “Nonlinear cosmological spherical collapse of quintessence”, Phys. Rev. D 93, 043533 (2016) – Published in 17 February 2016.
257. **Noack L., Rivoldini A., and Van Hoolst T.**, 2016, “CHIC - Coupling Habitability, Interior and Crust: A new Code for Modeling the Thermal Evolution of Planets and Moons.”, International Journal On Advances in Systems and Measurements, 9(1-2), pp. 66-76.
258. **Le Maistre S.**, 2016, “InSight coordinates determination from direct-to-Earth radio-tracking and Mars topography model.”, Planetary and Space Science, 121, pp. 1-9, DOI: 10.1016/j.pss.2015.11.003
259. **Le Maistre S.**, Folkner W. M., Jacobson R.A., and Serra D., 2016, “Jupiter spin-pole precession rate and moment of inertia from Juno radio-science observations.”, Planetary and Space Science, 126, pp. 78-92, May 2016. DOI: 10.1016/j.pss.2016.03.006.
260. Lainey V., Jacobson R.A., Tajeddine R., Cooper N.J., Murray C., Robert V., Tobie G., Guillot T., Mathis S., Remus F., Desmars J., Arlot J.-E., **De Cuyper J.-P., Dehant V.**, Pascu D., Thuillot W., Le Poncin-Lafitte Ch., and Zahn J.-P., 2017, “New constraints on Saturn’s interior from Cassini astrometric data.”, Icarus, 281, pp. 286-296, DOI: 10.1016/j.icarus.2016.07.014.
261. Tasker E., Tan J., Heng K., Kane S., Spiegel D., Brasser R., Casey A., Desch S., Dorn C., Hernlund J., House C., Laneuville M., Lasbleis M., Libert A.-S., **Noack L.**, Unterborn C., and Wicks J., 2017, “The language of exoplanet ranking metrics needs to change.”, Nature Astronomy, 1, Id. 0042, DOI: 10.1038/s41550-017-0042.
262. Lainey V., Jacobson R.A., Tajeddine R., Cooper N.J., Murray C., Robert V., Tobie G., Guillot T., Mathis S., Remus F., Desmars J., Arlot J.-E., De Cuyper J.-P., **Dehant V.**, Pascu D., Thuillot W., Le Poncin-Lafitte Ch., and Zahn J.-P., 2017, “New constraints on on Saturn’s interior from Cassini astrometric data.”, Icarus, 281, pp. 286-296, DOI: 10.1016/j.icarus.2016.07.014.
263. Thuillier G., **Zhu P.**, Shapiro A.I., Sofia S., Tagirov R., van Ruymbeke M., and Schmutz W., 2017, “Solar disk radius determined from observations made during eclipses by bolometric and photometric instruments onboard the Picard satellite.”, Astr. Astrophys., 603, Id. A28, 12 pp., DOI: 10.1051/0004-6361/201629386.
264. **Zhu P., Rivoldini A., Koot L., and Dehant V.**, 2017, “Basic Earth’s Parameters as estimated from VLBI observations.”, Geodesy and Geodynamics, DOI: 10.1016/j.geog.2017.04.007, 2017.
265. **Dehant V., Laguerre R., Rekier J., Rivoldini A., Triana S.A., Trinh A., Van Hoolst T., Zhu P.**, 2017, “Study of the nutation of the Earth.”, Geodesy and Geodynamics, DOI: 10.1016/j.geog.2017.04.005.

266. **Yseboodt M., Dehant V., Péters M.J., 2017**, "Signatures of the Martian rotation parameters in the Doppler and range observables.", *Planet. Space Sci.*, 144, pp. 74-88, DOI: 10.1016/j.pss.2017.05.008.
267. **Noack L., Rivoldini A., and Van Hoolst T., 2017**, "Volcanism and outgassing of stagnant-lid planets: Implications for the habitable zone.", *Physics of the Earth and Planetary Interiors*, 269, pp. 40-57, DOI: 10.1016/j.pepi.2017.05.010.
268. **Baland R.M., Yseboodt M., Rivoldini A., Van Hoolst T., 2017**, "Obliquity of Mercury: influence of the precession of the pericenter and of tides.", *Icarus*, 291, pp. 136-159, DOI: 10.1016/j.icarus.2017.03.020.
269. Murdoch N, Hempel S., Pou L., Cadu A., Garcia R.F., Mimoun D., Margerin L, **Karatekin O., 2017**, "Probing the internal structure of the asteroid Didymoon with a passive seismic investigation", *Planetary and Space Science* 144, 89-105
270. Hyodo, R., Genda H., Charnoz S., **Rosenblatt P., 2017**, "On the Impact Origin of Phobos and Deimos. I. Thermodynamic and Physical Aspects", *The Astrophysical Journal* 845(2), article id. 125, 8 pp.
271. Bozdağ E., Ruan Y., Metthez N., Nathan; Khan A., Leng K., van Driel M., Wieczorek M., **Rivoldini A.,** Larmat C.S., Giardini D., Tromp J., Lognonné P., Banerdt B.W., **2017**, "Simulations of Seismic Wave Propagation on Mars.", *Space Science Reviews*, DOI: 10.1007/s11214-017-0350-z.
272. Dorn C., Venturini J., Khan A., Heng K., Alibert Y., Helled R., **Rivoldini A.,** Benz W., **2017**, "A generalized Bayesian inference method for constraining the interiors of super Earths and sub-Neptunes.", *Astronomy & Astrophysics*, 597, Id. A37, 16 p., DOI 10.1051/0004-6361/201628708.
273. **Triana S.A., Corsaro E., De Ridder J., Bonanno A., F. Pérez Hernández, García R.A., 2017**, "Internal rotation of 13 low-mass low-luminosity red giants in the Kepler field.", *Astronomy & Astrophysics*, Volume 602, id.A62, 16 pp., DOI: 10.1051/0004-6361/201629186.
274. **Dehant V., Park R., Dirkx D., Iess L., Neumann G., Turyshev S., and Van Hoolst T., 2017**, "Survey of capabilities and applications of accurate clocks: directions for planetary science.", *Space Science Reviews*, 212(3), pp. 1433-1451, DOI: 10.1007/s11214-017-0424-y.
275. Dumoulin C., Tobie G., Verhoeven O., **Rosenblatt P.,** and Rambaux N., **2017**, "Tidal constraints on the interior of Venus.", *J. Geophys. Res. Planets*, 122(6), pp. 1338-1352, DOI: 10.1002/2016JE005249.
276. **Van Hove B., and Karatekin Ö., 2017**, "Atmospheric Reconstruction with Stagnation Pressure Flight Data from Mars Science Laboratory.", *Journal of Spacecraft & Rockets*, 54(3), pp. 609-620, DOI: 10.2514/1.A33627.
277. **Noack L., Rauer H., and Snellen I., 2017**, "Water in extrasolar planets and implications for habitability.", *Space Science Reviews*, 212(1-2), pp. 877-898, DOI: 10.1007/s11214-017-0413-1.
278. Amerstorfer U.V., Gröller H., Lichtenegger H., Lammer H., Tian F., **Noack L.,** Scherf M., Johnston C., Tu L., and Güdel M., **2017**, "Escape and evolution of Mars' CO<sub>2</sub> atmosphere: Influence of suprathermal atoms.", *Journal of Geophysical Research – Planets*, 122(6), pp. 1321-1337, DOI: 10.1002/2016JE005175.
279. **Zhu P., Wild M., van Ruymbeke M., Thuillier G., Meftah M., Karatekin Ö., 2017**, "Interannual variation of global net radiation as measured from space", *Journal of Geophysical Research Atmospheres*, 121(12), pp. 6877-6891, DOI: 10.1002/2015JD024112.
280. Tasker E., Tan J., Heng K., Kane S., Spiegel D., and the ELSI-EON Planetary Diversity Workshop (R. Brasser, A. Casey, C. Dorn, C. Houser, J. Hernlund, M. Lasbleis, M. Laneuville, A.-S. Libert, **L. Noack**, C. Unterborn) **2017**, "The language of exoplanet ranking metrics needs to change.", *Nature Astronomy*, 1, Id. 0042, DOI: 10.1038/s41550-017-0042.

**Papers in press**

281. **Dehant V., Laguerre R., Rekier J., Rivoldini A., Triana S.A., Trinh A., Van Hoolst T., Zhu P., 2017**, "Study of the nutation of the Earth.", Geodesy and Geodynamics, in press.
282. **Zhu P., Rivoldini A., Trinh A., Dehant V., Laguerre R., Rekier J., Triana S.A., and Van Hoolst T., 2017**, "Basic Earth's Parameters as estimated from 3.2 decades VLBI observations.", Geodesy and Geodynamics, in press.