

**Bibliometrical data:** 86 peer-reviewed articles  
(September 2023) total number of citation (WoS): 3345  
h-index : 32  
5 papers cited 150+ times; 11 papers cited 100+ times; 22 papers cited 50+ times  
2 chapters in research monographs

among my articles: 4 Science, 1 Nature, 1 Nature Comm., 3 Nature Geosci., 5 PNAS, 5 Phys. Rev. Lett., 4 Geophys. Res. Lett., 11 Earth Planet. Sci. Lett., 1 Geochim. Cosmochim. Acta, 3 Sci. Rep., 3 J. Geophys. Res. – Planets, 6 J. Geophys. Res. - Solid Earth, 2 Phys. Rev. Materials, 12 Phys. Rev. B, 3 Appl. Phys. Lett.

### Publications in peer review journals

- 86) “*Thermal equation of state of Fe<sub>3</sub>O<sub>4</sub> magnetite up to 16 GPa and 1100 K*”, N.C. Siersch, G. Criniti, A. Kurnosov, K. Glazyrin, D. Antonangeli, Am. Mineral. 108, 1322 (2023).
- 85) “*Spin state and deep interior structure of Mars from InSight radio tracking*”, S. Le Maistre, A. Rivoldini, A. Caldiero, M. Yseboodt, R.-M. Baland, M. Beuthe, T. Van Hoolst, V. Dehant, W.M. Folkner, D. Buccino, D. Kahan, J.-C. Marty, D. Antonangeli, J. Badro, M. Drilleau, A. Konopliv, M.-J. Péters, A.-C. Plesa, H. Samuel, N. Tosi, M. Wiczorek, P. Lognonné, M. Panning, S. Smrekar, W.B. Banerdt, Nature 619, 733 (2023).
- 84) “*First observations of core-transiting seismic phases on Mars*”, J.C.E. Irving, V. Lekić, C. Durán, M. Drilleau, D. Kim, A. Rivoldini, A. Khan, H. Samuel, D. Antonangeli, W.B. Banerdt, C. Beghein, E. Bozdog, S. Ceylan, C. Charalambous, J. Clinton, P. Davisi, R. Garcia, D. Giardini, A. Horleston, Q. Huang, K.J. Hurst, T. Kawamura, S.D. King, M. Knapmeyer, J. Li, P. Lognonné, R. Maguire, M.P. Panning, A.-C. Plesa, M. Schimmel, N.C. Schmerr, S.C. Stähler, E. Stutzmann, Z. Xu, PNAS 120, e2217090120 (2023).
- 83) “*Composition-dependent thermal equation of state of B2 Fe-Si alloys at high pressure*” by S. Yokoo, E. Edmund, G. Morard, M. Baron, S. Boccato, F. Decremps, K. Hirose, A. Pakhomova, D. Antonangeli, Am. Mineral. 108, 536 (2023).
- 82) “*Local structure and density of liquid Fe-C-S alloys at Moon’s core conditions*”, B. Zhao, G. Morard, E. Boulard, S. Boccato, N.C. Siersch, A. Rivoldini, N. Guignot, L. Henry, A. King, C. Zurkowski, Y. Fei, D. Antonangeli, J. Geophys. Res. – Planet 128, e2022JE007577 (2023).
- 81) “*Structural and electronic transitions in liquid FeO under high pressure*”, G. Morard, D. Antonangeli, J. Bouchet, A. Rivoldini, S. Boccato, F. Miozzi, E. Boulard, H. Bureau, M. Mezouar, C. Prescher, S. Chariton, E. Greenberg, J. Geophys. Res. – Solid Earth 127, e2022JB025117 (2022).
- 80) “*Seismic detection of a deep mantle discontinuity within Mars by InSight*”, Q. Huang, N.C. Schmerr, S.D. King, D. Kim, A. Rivoldini, A.-C. Plesa, H. Samuel, R.R. Maguire, F. Karakostas, V. Lekić, C. Charalambous, M. Collinet, R. Myhill, D. Antonangeli, M. Drilleau, M. Bystricky, C. Bollinger, C. Michaut, T. Gudkova, J.C.E. Irving, A. Horleston, B. Fernando, K. Leng, T. Nissen-Meyer, F. Bejina, E. Bozdağ, C. Beghein, L. Waszek, N.C. Siersch, J.-R. Scholz, P.M. Davis, P. Lognonné, B. Pinot, R. Widmer-Schmidrig, M.P. Panning, S.E. Smrekar, T. Spohn, W.T. Pike, D. Giardini, W. Bruce Banerdt, PNAS 119, e2204474119 (2022).
- 79) “*Sound velocities and thermodynamical properties of hcp iron at high pressure and temperature*”, J. Bouchet, F. Bottin, D. Antonangeli, G. Morard, Journal of Physics: Condensed Matter 34, 344002 (2022).
- 78) “*X-ray diffraction study on phase transformation dynamics of iron and Fe-Si alloys along the shock Hugoniot using an x-ray free electron laser*”, A. Krygier, M. Harmand, B. Albertazzi, E.E. McBride, K. Miyanishi, D. Antonangeli, Y. Inubushi, R. Kodama, M. Koenig, T. Matsuoka, G. Moggi, F. Pietrucci, A.M. Saitta, T. Togashi, Y. Umeda, T. Vinci, M. Yabashi, T. Yabuuchi, G. Fiquet, N. Ozaki, Phys. Rev. B 05, L220102 (2022).
- 77) “*InSight constraints on the global character of the Martian crust*”, M.A. Wiczorek, A. Broquet, S.M. McLennan, A. Rivoldini, M. Golombek, D. Antonangeli, C. Beghein, D. Giardini, T. Gudkova, S. Gyalay, C.L. Johnson, R. Joshi, D. Kim, S.D. King, B. Knapmeyer-Endrun, P. Lognonnée, C. Michaut, A. Mittelholz, F. Nimmo, L. Ojha, M.P. Panning, A.-C. Plesa, M.A. Siegler, S.E. Smrekar, T. Spohn, W.B. Banerdt, J. Geophys. Res. – Planet 127, e2022JE007298 (2022).
- 76) “*Determination of indium melting curve at high pressure by picosecond acoustics*”, S. Ayrinhac, M. Gauthier, M. Morand, Y. Garino, S. Boccato, F. Decremps, P. Parisiades, P. Rosier, N.C. Siersch, A. Seghour, D. Antonangeli, Phys. Rev. Materials 6, 063403 (2022).
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- 74) “*The interaction between the SEIS seismometer of the InSight Martian mission and a regolith simulant*”, P. Delage, J.P. Castillo-Betancourt, B. Caicedo-Hormaza, F. Karakostas, E. De Laure, P. Lognonné, D. Antonangeli, B. Banerdt, Géotechnique, 0:0, 1-12, doi: 10.1680/jgeot.21.00171 (2022).
- 73) “*The Fe-Si-C system at extreme P-T conditions: a possible core crystallization pathway for reduced planets*”, F. Miozzi, G. Morard, D. Antonangeli, A. N. Clark, M. A. Baron, A. Pakhomova, M. Mezouar, G. Fiquet, Geochim. Cosmochim. Acta 322, 129 (2022).
- 72) “*Amorpheus: a python-based software for the treatment of x-ray scattering data of amorphous and liquid systems*”, S. Boccato, Y. Garino, G. Morard, B. Zhao, F. Xu, C. Sanloup, A. King, N. Guignot, A. Clark, G. Garbarino, M. Morand, D. Antonangeli, High Press. Res. 42, 69 (2022) DOI: 10.1080/08957959.2022.2032032.
- 71) “*The Fe-FeSi Phase Diagram at Mercury's Core Conditions*”, E. Edmund, G. Morard, M. Baron, A. Rivoldini, S. Yokoo, S. Boccato, K. Hirose, A. Pakhomova, D. Antonangeli, Nature Comm. 13, 387 (2022).
- 70) “*Low Velocity Zones in the Martian Upper Mantle Highlighted by Sound Velocity Measurements*”, F. Xu, N.C. Siersch, S. Gréaux, A. Rivoldini, H. Kuwahara, N. Kondo, N. Wehr, N. Menguy, Y. Kono, Y. Higo, A.-C. Plesa, J. Badro, D. Antonangeli, Geophys. Res. Lett. 48, e2021GL093977 (2021).
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