



## LIST OF PUBLICATIONS 2012-2018

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### 2018 (131 PUBLICATIONS)

Agnes P. et al. (ARIS Collaboration)

**Measurement of the liquid argon energy response to nuclear and electronic recoils**

Phys. Rev. D97 (2018) 11 112005

Aiello S., et al. [KM3NeT Collaboration],

**Characterisation of the Hamamatsu photomultipliers for the KM3NeT neutrino telescope**

JINST 13 (2018) no.05, P05035

Amor M., Busigny V., Louvat P., Tharaud M., Gélabert A., Cartigny P., Carlut J., Isambert A., Durand-Dubief M., Ona-Nguema G., Alphandery E., Chebbi I., Guyot F. (2018) **Iron uptake and magnetite biomagnetization in the magnetotactic bacterium Magnetospirillum magneticum strain AMB-1: An iron isotope study.** Geochimica et Cosmochimica Acta 232, 225-243.

Amsellem\*, E., Moynier, F., Day,J., Teng, FZ, Puchtel., I.

**Stable Sr isotopic composition of OIB, MORB, komatiites and Kilauea iki lava lake samples.**

2018 Chem. Geol 483, 595-602

Arabsalmani, M., ..., Le Floc'h, E., ..., Vergani, S., 2018,

**Mass and metallicity scaling relations of high-redshift starforming galaxies selected by GRBs**

MNRAS, 473,3312

Arabsalmani, M., Le Floc'h, E., ..., Vergani, S., et al., 2018,  
**A molecular gas-rich GRB host galaxy at the peak of cosmic star formation**  
MNRAS, 476, 2332

Armano et al.  
**Beyond the Required LISA Free-Fall Performance: New LISA Pathfinder Results down to 20 μHz**  
Physical Review Letters (2018), vol. 120, pp. 061101

Armano et al., **Calibrating the system dynamics of LISA Pathfinder**, Phys. Rev. D (2018), vol. 97, pp. 122002

Armano et al., **Precision charge control for isolated free-falling test masses: LISA pathfinder results**, Phys. Rev. D (2018), vol. 98, pp. 062001

Armano, H Audley, J Baird, P Binetruy, M Born, D Bortoluzzi, E Castelli, A Cavalleri, A Cesarini, M Cruise, K Danzmann, M de Deus Silva, I Diepholz, G Dixon, R Dolesi, L Ferraioli, V Ferroni, N Finetti, E D Fitzsimons, M Freschi, L Gesa, F Gibert, D Giardini, R Giusteri, C Grimani, J Grzymisch, I Harrison, G Heinzel, M Hewitson, D Hollington, D Hoyland, M Hueller, H Inchauspe, O Jennrich, P Jetzer, N Karnesis, B Kaune, N Korsakova, C J Killow, J A Lobo, I Lloro, L Liu, J P Lopez-Zaragoza, R Maarschalkerweerd, D Mance, N Meshkar, V Martin, L Martin-Polo, J Martino, F Martin-Porqueras, I Mateos, P W McNamara, J Mendes, L Mendes, M Nofrarias, S Paczkowski, M Perreir-Lloyd, A Petiteau, P Pivato, E Plagnol, J Ramos-Castro, J Reiche, D I Robertson, F Rivas, G Russano, J Slutsky, C F Sopuerta, et al. (12 additional authors not shown), 12 janvier 2018

**Measuring the Galactic Cosmic Ray Flux with the LISA Pathfinder Radiation Monitor**  
arXiv:1711.07427 [astro-ph.IM]

Armano, H. Audley, J. Baird, M. Bassan, S. Benella, P. Binetruy, M. Born, D. Bortoluzzi, A. Cavalleri, A. Cesarini, A. M. Cruise, K. Danzmann, M. de Deus Silva, I. Diepholz, G. Dixon, R. Dolesi, M. Fabi, L. Ferraioli, V. Ferroni, N. Finetti, E. D. Fitzsimons, M. Freschi, L. Gesa, F. Gibert, D. Giardini, R. Giusteri, C. Grimani, J. Grzymisch, I. Harrison, G. Heinzel, M. Hewitson, D. Hollington, D. Hoyland, M. Hueller, H. Inchauspé, O. Jennrich, P. Jetzer, N. Karnesis, B. Kaune, N. Korsakova, C. J. Killow, M. Laurenza, J. A. Lobo, I. Lloro, L. Liu, J. P. López-Zaragoza, R. Maarschalkerweerd, D. Mance, V. Martín, L. Martin-Polo, J. Martino, F. Martin-Porqueras, I. Mateos, P. W. McNamara, J. Mendes, L. Mendes, M. Nofrarias, S. Paczkowski, M. Perreir-Lloyd, A. Petiteau, P. Pivato, et al. (24 additional authors not shown), 23 avril 2018

**Characteristics and energy dependence of recurrent galactic cosmic-ray flux depressions and of a Forbush decrease with LISA Pathfinder**  
arXiv:1802.09374 [physics.space-ph]

Bahramian, A., ..., Tremou, E. et al. 2018,  
**The MAVERIC Survey: A Transitional Millisecond Pulsar Candidate in Terzan 5**  
ApJ, 864, 28.

Barack et al. including E. Chassande-Mottin, E. Porter and Chaty S., 2018,  
**Black holes, gravitational waves and fundamental physics: a roadmap**  
CQG subm. (arXiv180605195)

Barnes J. W., S. M. MacKenzie, E. F. Young, L. E. Trouille, S. Rodriguez, T. Cornet, B. K. Jackson, M. Ádamkovics, C. Sotin , and J. M. Soderblom.  
**Spherical radiatit transfer in C++ (SRTC++): A parallel Monte-Carlo radiative transfer model for Titan,**  
The Astronomical Journal 155:264 (12pp), 2018.<https://doi.org/10.3847/1538-3881/aac2db>

Barnes Jason W., Shannon M. MacKenzie, Eliot F. Young, Laura E. Trouille, **Sebastien Rodriguez**, Thomas Cornet, Brian K. Jackson, Mate Adamkovics, Christophe Sotin, and Jason M. Soderblom. **Spherical Radiative Transfer in C++ (SRTC++): A Parallel Monte Carlo Radiative Transfer Model for Titan.**

ASTRONOMICAL JOURNAL, 155(6), JUN 2018.

**Bassi, T., Migliori, G. et al. 2018,**  
**Faint  $\gamma$ -ray sources at low redshift: the radio galaxy IC 1531**  
MNRAS, 481, 5236.

Beck, Dominic, Fabbian, Giulio, Errard, Josquin, 2018  
**Lensing reconstruction in post-Born cosmic microwavebackground weak lensing**  
Physical Review D, Volume 98, Issue 4, id.043512

Bekaert D., Derenne S., Tissandier L., Marocchi Y., Charnoz S., Anquetil C., Marty B. 2018.  
**High-temperature Ionization-induced Synthesis of Biologically Relevant Molecules in the Protosolar Nebula.**  
ApJ 859, Id.142

Bergé , Brax P., Métris G., Pernot-Borras M., Touboul P., Uzan J.P., April 2018  
**MICROSCOPE first constraints on the violation of the weak equivalence principle by a light scalar dilaton**  
Phys. Rev. Lett. **120**, 141101

Bergé J.,  
**The Inverse Square Law And Newtonian Dynamics space explorer (ISLAND)**  
Submitted on 3 Sep 2018

Bergé, J., Baghi, Q., & Massey, R., 2018  
**Hydrogenic shapelets (Hilets): basis functions for astronomy, fundamental physics and space geodesy data analysis**  
to be submitted to Astronomy & Astrophysics

Bergé, J., Brax, P., Pernot-Borras, M., & Uzan, J.-P., 2018,  
**Interpretation of geodesy experiments in non-Newtonian theories of gravity**  
Classical and Quantum Gravity in press, arXiv:1808.00340

Bourret S., J. Coelho and V. Van Elewyck [for the KM3NeT Collaboration], 2018  
**Neutrino oscillation tomography of the Earth with KM3NeT/ORCA**  
PoS(ICRC2017) 1020 (2018)

Bouvier, L., et al.  
**Evidence for extremely rapid magma ocean crystallization and crust formation on Mars.**  
2018 Nature. 558, 586.

Broderick, J.W., ... **Corbel, S.** et al. , 2018,  
**LOFAR 150-MHz observations of SS 433 and W 50**  
MNRAS, 475, 5360.

Brossier J. F., S. Rodriguez, T. Cornet, A. Lucas, J. Radebaugh, L. Maltagliati, S. Le Mouélic, A. Solomoni-dou, A. Coustenis, M. Hirtzig, R. Jaumann, K. Stephan, and C. Sotin.  
**Geological evolution of Titan's equatorial regions: Possible nature and origin of the dune material**

Journal of Geophysical Research: Planets **123**, 2018. <https://doi.org/10.1029/2017JE005399>

Brossier, J. F. ,**S. Rodriguez**, T. Cornet, A. Lucas, J. Radebaugh, L. Maltagliati, S. Le Mouelic, A. Solomonidou, A. Coustenis, M. Hirtzig, R. Jaumann, K. Stephan, and C. Sotin.

**Geological Evolution of Titan's Equatorial Regions: Possible Nature and Origin of the Dune Material.**

JOURNAL OF GEOPHYSICAL RESEARCH-PLANETS, 123(5):1089–1112, MAY 2018.

Busigny V., Chen J.B., Philippot P., Moynier F. (2018) **Insight into hydrothermal and subduction processes from copper and nitrogen isotopes in oceanic metagabbros.** Earth and Planetary Science Letters 498, 54-64.

Busigny V., Goldbaum E., Planavsky N.J., Lechte M.A., Feng L., Lyons T.W. (2018) **Origin of the Neo-proterozoic Fulu Iron Formation, South China: Insights from iron isotopes and rare earth element patterns.** Geochimica et Cosmochimica Acta 242, 123-142.

Caquineau T., Paquette J.-L., Philippot P. (2018) **U-Pb detrital zircon geochronology of the Turee Creek Group, Hamersley Basin, Western Australia: Timing and correlation of the Paleoproterozoic glaciations.** Precambrian Research 307, 34--50.

Carbone, D. , **Garsden, H.** et al. 2018,

**PySE : Software for Extracting Sources from Radio Images**

A&C., 23, 92.

Casse & P. Varniere, 2018,

**On the Rossby Wave Instability in accretion discs surrounding spinning black holes**

MNRAS Vol. 481, 2736

Cavet C., A. Bailly-Reyre, D. Chamont, O. Dadoun, P. Hennion, O. Lodygensky, G. Marchal-Duval, E. Meldernach, V. Mendoza, J. Pansanel, A. Sartirana, M. Souchal, J. Tugler

**ComputeOps : container for High Performance Computing**

CHEP 2018 Conference (2018) In prep.

Cavet C., A. Petiteau, M. Le Jeune

**Prototyping for the Distributed Data Processing Center of LISA**

12th International LISA Symposium (2018) In prep.

Cendes, Y., ...., **Corbel, S.** et al. 2018,

**RFI flagging implications for short-duration transients**

A&C, 23, 103.

Charbonnier, Q., Moynier, F., Bouchez, J.,

**Ba isotope geochemistry.**

2018 Science Bulletin, 63, 385-394

Charnoz S., Canup R.M., Crida A., Dones L. 2018.

**The Origin of Planetary Ring System.**

Planetary Rings 2, C.D. Murray and M. Tiscareno Eds., Univ. Of Arizona Press

Chavrit D., M. Moreira, D. Fike and F. Moynier, October 2018

**Unusual neon isotopic composition in Neoproterozoic sedimentary rocks: fluorine bearing mineral contribution or trace of an impact event?**

accepted at Chemical Geology

Colomer Molla, Marta & Lincetto, Massimiliano,

**Study of KM3NeT telescopes potential to CCSN neutrino signal**

internal note of the KM3NeT collaboration.

Colomer Molla, Marta & Lincetto, Massimiliano, 2018

**CCSN neutrino detection with the KM3NeT neutrino telescopes**

Proceedings of RICAP 2018, in press.

Colomer Molla, Marta & Lincetto, Massimiliano, 2018

**Study of KM3NeT sensitivity to CCSN MeV neutrinos**

Proceedings of VLVnT 2018, in press.

Coogan, R. T., Tremou, E. et al., 2018,

**Merger driven star-formation activity in CI J1449+0856 at z=1.99 as seen by ALMA and JVLA**

MNRAS, 479, 703.

Coppejans, D., ..., Migliori, G. et al. , 2018,

**Jets in Hydrogen-poor Superluminous Supernovae: Constraints from a Comprehensive Analysis of Radio Observations**

ApJ, 856, 56.

DarkSide Collaboration,

**Constraints on Sub-GeV Dark Matter-Electron Scattering from the DarkSide-50 Experiment**

arXiv:1802.06998 (2018) (accepted by PRL)

DarkSide Collaboration,

**DarkSide-50 532-day Dark Matter Search with Low-Radioactivity Argon**

arXiv:1802.07198 (2018)

DarkSide Collaboration,

**Electroluminescence pulse shape and electron diffusion in liquid argon measured in a dual-phase TPC**

arXiv:1802.01427 (2018)

DarkSide Collaboration,

**Low-mass Dark Matter Search with the DarkSide-50 Experiment**

Phys. Rev. Lett. 121 (2018) 081307

Daubar, I., P.Lognonné, N.A. Teanby, K.Miljkovic, J.Stevanovic, J. Vaubaillon, B.Kenda, T. Kawamura, J.Clinton, A.Lucas, M.Drillea, C. Yana, G.S. Collins, D.Banfield, M.Golombek, S. Kedar, N.Schmerr, R.Garcia, S.Rodriguez, T.Gudkova, S.May, M.Banks, J.Maki, E.Sansom, F. Karakostas, M.Panning, N.Fuji, J.Wookey, M.van Driel, M.Lemmon, V.Ansan, M.Böse, S. Stähler, H.Kanamori, J.Richardson, S. Smrekar, W. Bruce Banerdt,

**Impact-Seismic Investigations of the InSight Mission**

in revision, to *Space Science Review*, 2018

Day, J., Tait, K., Udry, A., Moynier, F., Liu, Y., Neal, C.

**Rejuvenated martian magmatism from plume metasomatized mantle.**

2018 Nature Communication. Accepted.

Demidem, M. Lemoine & F. Casse, 2018,

**Relativistic magnetohydrodynamical simulations of the resonant corrugation of a fast shock front**

MNRAS Vol. 475, 2713

Deng\*, ZB, Moynier, F., Sossi\*, P., Van Zuilen, K., Chaussidon, M.

**Lack of resolvable titanium isotopic variations in bulk chondrites.**

2018 GCA. 239, 409-419

Doux, Cyrille; Penna-Lima, Mariana; Vitenti, Sandro D. P.; Tréguer, Julien; Aubourg, Eric; Ganga, Ken  
**Cosmological constraints from a joint analysis of cosmic microwave background and spectroscopic tracers of the large-scale structure**

Monthly Notices of the Royal Astronomical Society, Volume 480, Issue 4, p.5386-5411

Emami R., Tom Broadhurst, Pablo Jimeno, George Smoot, Raul Angulo, Jeremy Lim, Ming Chung Chu, Ruth Lazkoz, 18 Novembre 2017

**Evidence of Neutrino Enhanced Clustering in a Complete Sample of Sloan Survey Clusters,**

Implying  $\sum m_\nu = 0.11 \pm 0.03 \text{ eV}$ .

arXiv:1711.05210v2 [astro-ph.CO]

Emami, Razieh, Tom Broadhurst, George Smoot, Tzihong Chiueh, Luu Hoang Nhan, 2018

**A Soliton Solution for the Central Dark Masses in Globular Clusters and Implications for the Axiverse**

12 Juin 2018, [arXiv:1806.04518](#) [astro-ph.CO]

Fayon et al. **A numerical model of the SEIS leveling system transfer matrix and resonances: application to SEIS rotational seismology and dynamic ground interaction**, Space Science Reviews, in press

Fayon, L., B.Knapmeyer-Endrun, P. Lognonné, M.Bierwirth, A.Kramer, P.Delage, F.Karakostas, S.Kedar, N.Murdoch, R.Garcia, N.Verdier, S.Tillier, W.T. Pike, K.Hurst, C.Schmelzbach, W.B. Banerdt, **A numerical model of the SEIS leveling system transfer matrix and resonances: application to SEIS rotational seismology and dynamic ground interaction**, in press, *Space Science Review*, 2018.

Fernandez-Cascales L., A. Lucas, S. Rodriguez, X. Gao, A. Spiga, and C. Narteau.

**First quantification of relationship between dune orientation and sediment availability, Olympia Undae, Mars,**

Earth and Planetary Science Letters **489**, 241–250, 2018. <https://doi.org/10.1016/j.epsl.2018.03.001>

Fernandez-Cascales, Laura, **Antoine Lucas, Sébastien Rodriguez, Xin Gao, Aymeric Spiga, and Clément Narteau**.

**First quantification of relationship between dune orientation and sediment availability, Olympia Undae, Mars.**

EARTH AND PLANETARY SCIENCE LETTERS, 489:241–250, MAY 1 2018.

Fernandez-Cascales, Laura, Lucas Antoine, Rodriguez Sébastien, Gao Xin, Spiga Aymeric, and Narteau Clément

**First quantification of relationship between dune orientation and sediment availability, Olympia Undae, Mars**

Earth and Planetary Science Letters, 2018/05/01/, Volume 489, p.241 - 250, (2018)

Fiorucci D. et al.,

**Impact of infrasound atmospheric noise on gravity detectors used for astrophysical and geophysical applications**

Physical Review D., January 2018, DOI: 10.1103/PhysRevD.97.062003

Fogantini, F. , F. García, J. Martí, P. Luque Escamilla, J. A. Combi, S. Chaty (2018)

**Precessional evolution of Fe and Ni lines from the baryonic jets of SS433 as seen by NuSTAR**

ApJ submitted

Fortin F., Chaty S., Coleiro A., Tomsick J.A., Nitschelm C., 2018,  
**Spectroscopic identification of INTEGRAL high-energy sources with VLT/ISAAC**  
A&A in press (arXiv180809816)

Franco, D. , 2018  
**New Physics Results from DarkSide-50,**  
Proceeding of 53rd Rencontres de Moriond on Electroweak Interactions and Unified Theories

Frank, W.B., N.M. Shapiro, and A.A. Gusev (2018),  
**Progressive reactivation of the volcanic plumbing system beneath Tolbachik volcano (Kamchatka, Russia) revealed by long-period seismicity,**  
Earth Planet. Sci. Lett., 493, 47-56, <https://doi.org/10.1016/j.epsl.2018.04.018>.

Gao X. , Gadal C., Rozier O., Narteau C., 2018  
**Morphodynamics of barchan and dome dunes under variable wind regimes**  
Geology, **46**, 743–746, doi:10.1130/G45101.1

Gao X., C. Gadal, O. Rozier, C. Narteau. (2018).  
**Morphodynamics of barchan and dome dunes under variable wind regimes**  
Geology, 46, 743–746, doi:10.1130/G45101.1

García, Federico; Fogantini, Federico A.; Chaty, Sylvain; Combi, Jorge A. (2018)  
**Spectral evolution of the supergiant HMXB IGR J16320-4751 along its orbit using XMM-Newton**  
A&A, 618, 61 <http://adsabs.harvard.edu/abs/2018A%26A...618A..61G>

Golombek M., M. Grott, G. Kargl, J. Andrade, J. Marshall, N. Warner, N. A. Teanby, V. Ansan, E. Hauber, J. Voigt, R. Lichtenheldt, B. Knapmeyer-Endrun, I. J. Daubar, D. Kipp, N. Muller, P. Lognonné, C. Schmelzbach, D. Banfield, A. Trebi-Ollennu, J. Maki, S. Kedar, D. Mimoun, N. Murdoch, S. Piqueux, P. Delage, W. T. Pike, C. Charalambous, R. Lorenz, L. Fayon, A. Lucas, S. Rodriguez, P. Morgan, A. Spiga, M. Panning, T. Spohn, S. Smrekar, T. Gudkova, R. Garcia, D. Giardini, U. Christensen, T. Nicollier, D. Sollberger, J. Robertsson, K. Ali, B. Kenda, and W. B. Banerdt.

**Geology and Physical Properties Investigations by the InSight Lander,**  
SSR 214:84, 2018. <https://doi.org/10.1007/s11214-018-0512-7>

Golombek, M. Grott, G. Kargl, J. Andrade, J. Marshall, N. Warner, N. A. Teanby, V. Ansan, E. Hauber, J. Voigt, R. Lichtenheldt, B. Knapmeyer-Endrun, I. J. Daubar, D. Kipp, N. Muller, P. Lognonné, C. Schmelzbach, D. Banfield, A. Trebi-Ollennu, J. Maki, S. Kedar, D. Mimoun, N. Murdoch, S. Piqueux, P. Delage, W. T. Pike, C. Charalambous, R. Lorenz, L. Fayon, A. Lucas, S. Rodriguez, P. Morgan, A. Spiga, M. Panning, T. Spohn, S. Smrekar, T. Gudkova, R. Garcia, D. Giardini, U. Christensen, T. Nicollier, D. Sollberger, J. Robertsson, K. Ali, B. Kenda, and W. B. Banerdt.  
Geology and Physical Properties Investigations by the InSight Lander.  
SPACE SCIENCE REVIEWS, 214(5), AUG 2018.

Gómez-García, C., F Brenguier, P Boué, N.M. Shapiro, D.V. Droznin, S.Ya. Droznina, S.L. Senyukov, and E.I. Gordeev (2018),  
**Retrieving robust noise-based seismic velocity changes from sparse data sets: synthetic tests and application to Klyuchevskoy volcanic group (Kamchatka),**  
Geophys. J. Int., 214(2), 1218–1236, <https://doi.org/10.1093/gji/ggy190>.

Götz, D., ..., Cordier, B., Le Floc'h, E., ... ,Vergani, S., et al., 2018,  
**The Infra-Red Telescope on board the THESEUS mission**  
Mem. S.A.lt., in press, (<https://arxiv.org/abs/1802.01676>)

Hyodo R., Charnoz S., 2018.

**Dynamical Evolution of the debris disk after satellite catastrophic disruption around Saturn.**  
Astron. J., 154, Id.34

Hyodo\* R., Genda H., Charnoz S., Pignatale F., Rosenblatt P., 2018.

**On the Impact Origin of Phobos and Deimos.**

IV. Volatile Depletion. ApJ 860, Id.50

Inglis\*, E., Moynier, F., Creech\*, J.

**High precision Zirconium stable isotope measurements of geological reference materials as measured by double-spike MC-ICPMS,**

Chemical Geology 2018

Juhel K. et al.

**Normal mode simulation of prompt elastogravity signals induced by an earthquake rupture**  
Accepted for publication in GJI

Juhel, Kévin, Jean-Paul, Ampuero Matteo Barsuglia, Eric Chassande-Mottin, Donatella Fiorucci, Jan Harms, Jean-Paul Montagner, Martin Vallée, Bernard Whiting

**Earthquake early warning using future generation gravity strainmeters**

Submitted for publication to JGR

**Karakostas, F., V.Rakoto, P.Lognonné, C.Larmat, I.Daubar, K.Miljkovic,**  
**Inversion of meteor Rayleigh waves on Earth and modeling of air coupled Rayleigh waves**  
**on Mars,**  
in revision, *Space Science Review*, 2018

Keivani A. et al., including Chaty S. and Coleiro A., 2018,

**A Multimessenger Picture of the Flaring Blazar TXS 0506+056: : Implications for High-Energy Neutrino Emission and Cosmic Ray Acceleration**

for the Astrophysical Multi-messenger Observatory Network ApJ, 864, 84

L'Huillier Benjamin (KASI), Arman Shafieloo (KASI), Dhiraj Kumar Hazra, George F. Smoot, Alexei A. Starobinsky, 30 Octobre 2017

**Probing features in the primordial perturbation spectrum with large-scale structure data**  
arXiv:1710.10987 (astro-ph.CO)

Le Friant, A., Lebas E., Brunet, M., Lafuerza, S., Hornbach, M., Coussens, M, Watt, S.F.L., Cassidy, M.J., Talling, P.J. and IODP 340 Expedition scientists, (In Press).

**Submarine landslides around volcanic islands: A review of what can be learnt from the Lesser Antilles Arc.**

AGU Book "Submarine landslides: subaqueous mass transport deposits from outcrops to seismic profiles"  
edited by K. Ogata, G.A. Pini, A. Festa.

Le Mouélic S., J. W. Barnes, B. Charnay, J. F. Kok, R. D. Lorenz, J. Radabaugh, T. Cornet, O. Bourgeois, A. Lucas, P. Rannou, C. A. Griffith, A. Coustenis, T. Appéré, M. Hirtzig, C. Sotin, J. M. Soderblom, R. H. Brown, J. Bow, G. Vixie, L. Maltagliati, S. Courrech du Pont, C. Narteau, R. Jaumann, K. Stephan, K. H. Baines, B. J. Buratti, R. N. Clark, P. D. Nicholson.

**Dust storms on Titan,**

Nature Geoscience,

Le Mouélic S., S. Rodriguez, R. Robidel, B. Rousseau, B. Seignovert, C. Sotin, J.W. Barnes, R.H. Brown, K.H. Baines, B.J. Buratti, R.N. Clark, P.D. Nicholson, P. Rannou, and T. Cornet.

**Mapping polar atmospheric features on Titan with VIMS: From the dissipation of the nor-**

**thern cloud to the onset of a southern polar vortex,**  
carus 311, 371–383, 2018. <https://doi.org/10.1016/j.icarus.2018.04.028>

Le Mouelic, **S. Rodriguez**, R. Robidel, B. Rousseau, B. Seignovert, C. Sotin, J. W. Barnes, R. H. Brown, K. H. Baines, B. J. Buratti, R. N. Clark, P. D. Nicholson, R. Rannou, and T. Cornet.

**Mapping polar atmospheric features on Titan with VIMS: From the dissipation of the northern cloud to the onset of a southern polar vortex.**

ICARUS, 311:371–383, SEP 1 2018.

Le Mouélic, T. Cornet, **S. Rodriguez**, C. Sotin, B. Seignovert, J.W. Barnes, R.H. Brown, K.H. Baines, B.J. Buratti, R.N. Clark, P.D. Nicholson, J. Lasue, V. Pasek, and J.M. Soderblom.

**The Cassini VIMS archive of Titan: From browse products to global infrared color maps.**  
Icarus 319, 121-132, 2018.

Lee, Y-N., Hennebelle, P., 2018,

**Stellar mass spectrum of a collapsing massive clumps III The impact of temperature and magnetic field,**

A&A, submitted

Livermore, B., Connelly, J., Moynier, F., Bizzarro, M.

**Evaluating the robustness of a consensus 238U/235U for U-Pb geochronology**

2018 GCA. 237, 171-183

Mahan, B., Moynier, F., Beck, P., Pringle, E., Siebert, J.

**Thermal history and volatile loss in carbo-naceous chondrites: insights from water content, Zn isotopes and volatile element abundances.**

2018, 19-35. GCA.

Mahan\*, B., Moynier, F., Siebert, J., Gueguen, B., Agranier, A., Pringle, E., Bollard, J., Connelly, J., Bizzarro, M. 2018

**Volatile element evolution in chondrules through time.**

PNAS

Mahan\*, B., Moynier, F., Jorgensen, A., Siebert, J. 2018

**Examining the homeostatic distribution of metals and Zn isotopes**

in Göttingen minipigs Metallomics 10, 1264-1281

Mahan\*, B., Siebert, J., Blanchard, I., Badro, J., Kubik, E., Sossi, P., Moynier, F.

**Investigating Earth's Formation History Through Copper and Sulfur Metal-Silicate Partitioning During Core-Mantle Differentiation.**

2018 JGR.

Mahan\*, B., Siebert, J., Blanchard, I., Badro, J., Moynier, F.

**Constraining compositional proxies for the Earth's accretion and core formation through high pressure and high temperature Zn and S metal silicate partitioning.**

2018 GCA, 235, 21-40

Margutti, R... **Migliori, G.** et al 2018,

**Results from the first systematic survey of X-ray emission from Hydrogen-poor Super-luminous SNe**

ApJ, 864, 45.

Molenaar G., Makhathini S., **Girard J.N.**, Smirnov O., 2018,

**Kliko - the scientific compute container format**

A&C, 25, 9

- Moreira, M., Rouchon, V., Muller, E. and Noirez, S. (2018)  
**The xenon isotopic signature of the mantle beneath Massif Central.**  
 Geocemical Perspectives Letters 6, 28-32.
- Mougel\*, B., Moynier F., Goepl, C.  
**Chromium isotopic homogeneity between the Earth, the Moon and enstatite chondrites.**  
 2018 EPSL. 481, 1-8
- O' Sullivan et al.  
**Simulations and performance of the QUBIC optical beam combiner**  
 SPIE 2018
- Panet I. , BonvalotS. , Narteau C. , Remy D. , Lemoine J.-M. (2018)  
**Migrating pattern of deformation prior to the Tohoku-Oki earthquake revealed by GRACE data**  
 Nature Geoscience, 11, doi:10.1038/s41561-018-0099-3
- Panet I., S. Bonvalot, C. Narteau, D. Remy, J.-M. Lemoine. (2018).  
**Migrating pattern of deformation prior to the Tohoku-Oki earthquake revealed by GRACE data**  
 Nature Geoscience 11, doi:10.1038/s41561-018-0099-3
- Péron S. and M. Moreira, October 2018  
**Onset of volatile recycling into the mantle determined by xenon anomalies**  
 accepted at Geochemical Perspective letters
- Péron, S., M. Moreira and A. Agraniere (2018),  
**Origin of Light Noble Gases (He, Ne, Ar) on Earth,**  
 a Review, Geochemistry, Geophysics, Geosystems, 19. <https://doi.org/10.1002/2017GC007388>
- Péron\* S. and M. Moreira,  
**Onset of volatile recycling into the mantle determined by xenon anomalies,**  
 in press, Geochemical Perspective letters, October 2018
- Peron\*, S., Moreira , M. and Agraniere, A. (2018)  
**Origin of Light Noble Gases (He, Ne, Ar) on Earth,**  
 a Review. Geochemistry, Geophysics, Geosystems 19.
- Philippot P., Avila J., Killingsworth B., Tessalina S., Baton F., Caquineau T., Muller E., Pecoits E., Cartigny P., Lalonde S., Ireland T., Thomazo C., van Kranendonk M., Busigny V. (2018)  
**Globally asynchronous sulphur isotope signals require redefinition of the Great Oxidation Event.**  
 Nature Communications 9, 2245, DOI: 10.1038/s41467-018-04621-
- Philippot, P., Rollion-Bard, C. and Muller, E. (2018)  
**Origin of paleoarchean sulfate deposits.**  
 In: Van Kranendonk, M.J., Bennett, V.C., Hoffman, J.E. (Eds.), Earth's Oldest Rocks, 211-235. Elsevier.
- Pignatale F., Charnoz S., Chaussidon M., Jacquet E., 2018.  
**Origin of the first solar system solids during the assembling of the protoplanetary disk.**  
 Accepted in APJL
- Pignatale\* F.C., Charnoz S., Rosenblatt P., Hyodo R., Nakamura T., Genda H., 2018.  
**On the Impact Origin of Phobos and Deimos. III. Resulting Composition from Different Im-**

**pactors.**

ApJ 853, id.118

**Rodriguez S., S. Le Mouélic, J. W. Barnes, B. Charnay, J. F. Kok, R. D. Lorenz, J. Radebaugh, T. Cornet, O. Bourgeois, A. Lucas, P. Rannou, C. A. Griffith, A. Coustenis, T. Appéré, M. Hirtzig, C. Sotin, J. M. Soderblom, R. H. Brown, J. Bow, G. Vixie, L. Maltagliati, S. Courrech du Pont, C. Narteau, R. Jaumann, K. Stephan, K. H. Baines, B. J. Buratti, R. N. Clark, P. D. Nicholson.**

**Observational evidence for active dust storms on Titan at equinox.**

Nature Geoscience 11, pages 727–732, 2018.

Roubinet, C., M. Moreira (2018),

**Atmospheric noble gases in Mid-Ocean Ridge Basalts: Identification of atmospheric contamination processes,**

Geochimica Cosmochimica Acta, 222, 253-268.

Roubinet\*, C., M. Moreira (2018),

**Atmospheric noble gases in Mid-Ocean Ridge Basalts: Identification of atmospheric contamination processes,**

Geochimica Cosmochimica Acta, 222, 253-268

Siebert, J., Sossi\*, P., Blanchard, I., Mahan, B., Badro, J., Moynier, F.

**Chondritic Mn/Na ratio and limited post-nebular volatile loss to the Earth.**

2018 EPSL. 485, 130-139

Simons Observatory Collaboration

**The Simons Observatory: Science goals and forecasts**

eprint arXiv:1808.07445

Solomonidou A. , A. Coustenis, R. M. C. Lopes, M. J. Malaska, **S. Rodriguez**, P. Drossart, C. Elachi, B. Schmitt, S. Philippe, M. Janssen, M. Hirtzig, S. Wall, C. Sotin, K. Lawrence, N. Altobelli, E. Bratsolis, J. Radebaugh, K. Stephan, R. H. Brown, S. Le Mouélic, A. Le Gall, E. V. Villanueva, J. F. Brossier, A. A. Bloom, O. Witasse, C. Matsoukas, and A. Schoenfeld.

**The Spectral Nature of Titan's Major Geomorphological Units: Constraints on Surface Composition**

Journal of Geophysical Research: Planets **123**, 489–507, 2018. <https://doi.org/10.1002/2017JE005477>

Solomonidou, A. Coustenis, R. M. C. Lopes, M. J. Malaska, **S. Rodriguez**, P. Drossart, C. Elachi, B. Schmitt, S. Philippe, M. Janssen, M. Hirtzig, S. Wall, C. Sotin, K. Lawrence, N. Altobelli, E. Bratsolis, J. Radebaugh, K. Stephan, R. H. Brown, S. Le Mouelic, A. Le Gall, E. V. Villanueva, J. F. Brossier, A. A. Bloom, O. Witasse, C. Matsoukas, and A. Schoenfeld.

**The Spectral Nature of Titan's Major Geomorphological Units: Constraints on Surface Composition.**

JOURNAL OF GEOPHYSICAL RESEARCH-PLANETS, 123(2):489–507, FEB 2018.

Sossi, Moynier, Van Zuilen, 2018

**Volatile loss following cooling and accretion of the Moon revealed by chromium isotopes**  
PNAS, [doi/10.1073/pnas.1809060115](https://doi.org/10.1073/pnas.1809060115)

Sossi\*, P., Moynier, F., Van Zuilen,K. 2018

**Volatile loss following cooling and accretion of the Moon revealed by chromium isotopes**  
PNAS

Sossi\*, P., Nebel, O., O'Neill, H., Moynier, F.

**Progressive Accretion of Earth's Moderately Volatile Elements revealed by Zn Isotopes.**

2018 Chem. Geol. 477, 73-84

Soubestre, J., N.M. Shapiro, L. Seydoux, J. de Rosny, D. V. Droznin, S. Y. Droznina, S. L. Senyukov, and E. I. Gordeev (2018),

**Network-based detection and classification of seis- movolcanic tremors: Example from the Klyuchevskoy volcanic group in Kamchatka,**

J. Geophys. Res., 123, 2017JB014726, doi:10.1002/2017JB014726.

Spiga A., D. Banfield, J. A. Rodriguez Manfredi, M. T. Lemmon, O. Karatekin, F. Forget, N. Murdoch, B. Kenda, P. Lognonné, T. Kawamura, J. Clinton, R. Garcia, L. Rolland, D. Mimoun, R. Widmer, E. Beucler, V. Dehant, N. Teanby, S. Rodriguez, A. Lucas, R. Lorenz, I. Daubar, E. Stutzmann, M. Golombek, N. Mueller, T. Spohn, and W. B. Banerdt.

**Atmospheric Science with InSight,**

Space Sci Rev (2018) 214: 109. <https://doi.org/10.1007/s11214-018-0543-0>.

Spiga A., D. Banfield, J. A. Rodriguez Manfredi, M. T. Lemmon, O. Karatekin, F. Forget, N. Murdoch, B. Kenda, P. Lognonné, T. Kawamura, J. Clinton, R. Garcia, L. Rolland, D. Mimoun, R. Widmer, E. Beucler, V. Dehant, N. Teanby, S. Rodriguez, A. Lucas, R. Lorenz, I. Daubar, E. Stutzmann, M. Golombek, N. Mueller, T. Spohn, and W. B. Banerdt.

**Atmospheric Science with InSight,**

SSR, accepted.

Takakura et al.

**Measurements of tropospheric ice clouds with a ground-based CMB polarization experiment**  
POLARBEAR - eprint arXiv:1809.06556

**Thiriet, M.**, C. Michaut, A.-C. Plesa and D. Breuer,

**Hemispheric dichotomy in lithosphere thickness on Mars caused by differences in crustal structure and composition,**

J. Geophys. Res., doi:10.1002/2017JE005431, 2018.

**Thiriet, M.**, C. Michaut, D. Breuer and A.-C. Plesa,

**Scaling laws for cooling planets in a stagnant lid regime,**

in revision for Phys. Earth Planet. Int.

Traini A., A. Tartari, G. Bordier, B. Faouzi, C. Chaumont, B. Samir, F. Reix, M. Piat, 2018

**Dual-Color Antenna-Coupled LEKID for Next-Generation Multi-chroic CMB Focal Planes,**

Journal of Low Temperature, Physics vol. 193, pp. 170-175, 2018

Turtle E. P., J. E. Perry, J. M. Barbara, A. D. Del Genio, S. Rodriguez, S. Le Mouélic, C. Sotin, J. M. Lora, S. Faulk, P. Corlies, J. Kelland, S. M. MacKenzie, R. A. West, A. S. McEwen, J. I. Lunine, J. Pitesky, T. L. Ray, and M. Roy.

**Titan's meteorology over the Cassini mission: Evidence for extensive subsurface methane reservoirs,**

GRL, doi: 10.1029/2018GL078170

Turtle, J. E. Perry, J. M. Barbara, A. D. Del Genio, S. Rodriguez, S. Le Mouelic, C. Sotin, J. M. Lora, S. Faulk, P. Corlies, J. Kelland, S. M. MacKenzie, R. A. West, A. S. McEwen, J. I. Lunine, J. Pitesky, T. L. Ray, and M. Roy.

**Titan's Meteorology Over the Cassini Mission: Evidence for Extensive Subsurface Methane Reservoirs.**

GEOPHYSICAL RESEARCH LETTERS, 45(11):5320–5328, JUN 16 2018.

Van Elewyck V. [for the ANTARES and KM3NeT Collaborations] 2018

**The ANTARES and KM3NeT neutrino telescopes: status and outlook for acoustic studies**

Procs. ARENA 2018 – Acoustic and Radio EeV Neutrino Detection Activities (to appear in EPJ Web of Conferences)

Van Lieshout, R.; Kral, Q.; Charnoz, S.; Wyatt, M. C.; Shannon, A. 2018.

**Exoplanet recycling in massive white-dwarf debris discs.**

MNRAS 480, 2784-2812

Varniere & J. Rodriguez, 2018,

**Looking for the Elusive 3:2 Ratio of High-frequency Quasi-periodic Oscillations in the Microquasar XTE J1550564**

ApJ Vol. 865, 113

Wang X., Planavsky N., Hofmann A. , Saupe E.E., De Corte B.P., Philippot P. et al. (2018)

**A Mesoarchean shift in uranium isotope systematics.**

Geochimica et Cosmochimica Acta 238, 438-452.

Warchola T., Lalonde S.V., Pecoits E., von Gunten K., Robbins L.J., Alessi D.S., Philippot P., Konhauser K.O. (2018)

**Petrology and geochemistry of the Boolgeeda Iron Formation, Hamersley Basin, Western Australia.**

Precambrian Research 316, 155-173.

Ward, J.T. ; Alonso, D. ; Errard, J. ; Devlin, M.J. ; Hassefield, M.

**The Effects of Bandpass Variations on Foreground Removal Forecasts for Future CMB Experiments**

The Astrophysical Journal, Volume 861, Issue 2, article id. 82, 9 pp. (2018)

## 2017 (101 PUBLICATIONS)

Abbott,...,D. Götz, ...,S. Vergani,..., et al., 2017,  
**Multi-messenger observations of a neutron star merger**  
ApJ, 848, L12

Adrián-Martínez S. et al. [KM3NeT Collaboration], 2017  
**Intrinsic limits on resolutions in muon- and electron-neutrino charged-current events in the KM3NeT/ORCA detector**  
JHEP05 (2017) 008

Albert A. et al, ANTARES Collaboration,  
**An algorithm for the reconstruction of high-energy neutrino-induced particle showers and its application to the ANTARES neutrino telescope**  
Eur. Phys. J. C 77 (2017) 419

Amsellem, E., Moynier, F., Pringle, E., Bouvier, A., Day, J. 2017  
**Testing the chondrule-rich accretion theory with Ca isotopes.**  
EPSL. 469, 75-83

Arabsalmani, M. ...., E. Le Floc'h, ..., S. Vergani, et al., 2017,  
**Mass and metallicity scaling relations of high redshift star-forming galaxies selected by GRBs**  
MNRAS, in press

Arabsalmani, M. E. Le Floc'h, ..., S. Vergani, et al., 2017,  
**A Molecular gas rich GRB host galaxy at the peak of cosmic star formation with significant outflowing gas**  
MNRAS, in press

Armano et al., 2017  
**Charge-Induced Force Noise on Free-Falling Test Masses: Results from LISA Pathfinder.**  
Physical Review Letters (2017) vol. 118 pp. 171101 Eur. Phys. J. C 77 (2017) 419

Armano, M. et al., 2017  
**Capacitive sensing of test mass motion with nanometer precision over millimeter-wide sensing gaps for space-borne gravitational reference sensors**  
Physical Review Letters D (2017), vol. 96, pp. 062004

Asmaa Abada, Giorgio Arcadi, Valerie Domcke and Michele Lucente. September 5, 2017  
**Neutrino masses, leptogenesis and dark matter From small lepton number violation?**  
[https://arXiv:1709.00415v1 \[hep-ph\]](https://arXiv:1709.00415v1 [hep-ph])

Badullovich, Moynier, Creech, Sossi and Teng.  
**Tin stable isotopic fractionation during igneous differentiation.**  
2017 GPL. In press.

Bergé J., Touboul P., Rodrigues M., Liorzou F., 2017  
**MICROSCOPE : five months after launch**  
Journal of Physics: Conference Series, Volume 840, Issue 1, article id. 012028 (2017)

Binétruy P., Joel Mabillard, Mauro Pieroni. April 6, 2017.

**Universality in generalized models of inflation**

[https://arXiv:1611.07019v2 \[gr-qc\]](https://arXiv:1611.07019v2)

Blanchard, J. Siebert, J. Badro. 2017.

**The solubility of heat-producing elements in Earth's core.**

GPL, 5, 1-5.

Bourret S., Coelho J. and Van Elewyck V. for the KM3NeT Collaboration,  
**Neutrino oscillation tomography of the Earth with KM3NeT/ORCA**  
J. Phys. Conf. Ser. 888 (2017) 1, 012114

Bourret S., J. Coelho and V. Van Elewyck [for the KM3NeT Collaboration],  
**Neutrino oscillation tomography of the Earth with KM3NeT/ORCA**  
PoS(ICRC2017) 1020

Brossier J.F., S. Rodriguez, T. Cornet, A. Lucas, J. Radebaugh, L. Maltagliati, S. Le Mouélic, A. Solomoni-dou, A. Coustenis, M. Hirtzig, R. Jaumann, K. Stephan, and C. Sotin.

**Titan's Equatorial Belt: Composition and Geomorphology from Cassini/VIMS and RADAR data,**

under review in J. Geophys. Res. Planets.

Brunet, M., Moretti, L., Le Friant A., Mangeney, A., Fernandez-Nieto, Enrique,D., Bouchut, F. (2017)  
**Numerical simulation of the 30-45 Ka debris avalanche flow of Montagne Pelée volcano, Martinique: from volcano flank collapse to submarine emplacement.**  
Natural Hazards, 87-2:1189-1222

Busigny, V., Marin-Carbonne, J., Muller, E., Cartigny, P., Rollion-Bard, C., Assayag, N. and Philippot, P. (2017)

**Iron and sulfur isotope constraints on redox conditions associated with barite deposits from the 3.2 Ga Mapepe Formation (Barberton Greenstone Belt, South Africa).**  
Geochim. Cosmochim. Acta, 210, 247–266.

Casse F., P.Varniere & Z. Meliani, 2017,

**Impact of the gravity of a Schwarzschild black hole upon the Rossby wave instability**

MNRAS Vol. 464, 3704

Charbonnier, Moynier, Bouchez, 2017

**Ba isotope geochemistry.**

In review to Science Bulletin.

Chaussidon, M. Deng, ZB, Villeneuve, J., Moureau, J., Richter, F., Moynier, F. 2017

**In situ analysis of non-traditional isotopes by SIMS and LA-MC-ICP-MS: key aspects and the example of Mg isotopes in olivines and silicate glasses.**

Review in mineralogy and geochemistry. Vol. 82. 127-164

Chavrit, D., Moreira, M. Moynier, F. 2017

**Unusual neon isotopic composition in Neoproterozoic sedimentary rocks: fluorine bearing minerals or impact event?**

Precambrian Research. In review.

Coelho J. for the KM3NeT Collaboration,

**Probing new physics with atmospheric neutrinos at KM3NeT/ORCA**

J. Phys. Conf. Ser. 888 (2017) 1, 012115

Coughlam, C.P. et al. (includant S. Corbel) 2017,  
**A LOFAR Detection of the Low-mass Young Star T Tau at 149 MHz**  
Astrophys. J., 834, 206

Creech, J., Moynier, F. Bizzarro, M.  
**Tracing metal/silicate segregation and late veneer in the Earth and in the ureilite parent body with palladium stable isotopes.**  
GCA. 216, 28-41.

Creech, J., Moynier, F., \*Badullovich, N. 2017.  
**Tin stable isotope analysis of geological materials by double-spike MC-ICPMS.**  
Chem. Geol. 457, 61-67.

Creech, J.Baker, J., Handler, M., Lorand, JP, Storey, M. Moynier, F. Bizzarro, M..  
**Late accretion history of terrestrial planets inferred from stable isotopes.**  
GPL. 2017. 2, 94-104

DarkSide Collaboration,  
**The Electronics, Trigger and Data Acquisition System for the Liquid Argon Time Projection Chamber of the DarkSide-50 Search for Dark Matter**  
JINST 12 (2017) no.12, P12011

DarkSide Collaboration,  
**Effect of Low Electric Fields on Alpha Scintillation Light Yield in Liquid Argon**  
JINST 12 (2017) P01021

DarkSide Collaboration, 2017  
**DarkSide-20k: A 20 Tonne Two-Phase LAr TPC for Direct Dark Matter Detection at LNGS**  
arXiv:1707.08145 (2017)

DarkSide Collaboration, 2017  
**Effect of Low Electric Fields on Alpha Scintillation Light Yield in Liquid Argon**  
JINST 12 (2017) P01021

DarkSide Collaboration, 2017.  
**Simulation of argon response and light detection in the DarkSide-50 dual phase TPC,**  
JINST 12 (2017) P10015

Daubar I. et al. (P. Lognonné, S. Rodriguez and A. Lucas included), 2017  
**Impact-Seismic Investigations of the InSight Mission**  
submitted to SSR.

Day, J., Moynier, F., Shearer, C. 2017.  
**Last stage magmatic degassing from a volatile depleted Moon.**  
PNAS. 10.1073/pnas.1708236114

Delage, P., Karakostas, F., Dhemaied, A. , Belmokhtar, M., Lognonné P., Golombek, M., De Laure, E., Hurst, K., Dupla, J.C., Keddar, S., Cui, Y.J., Banerdt, W.B., An Investigation of the Mechanical Properties of Some Martian Regolith Simulants with Respect to the Surface Properties at the InSight Mission Landing Site, Space Sci Rev, 211, 191–213, doi: <https://doi.org/10.1007/s11214-017-0398-9>, 2017.

Dhaliwal, JK, Day, J., Moynier, F. 2017.  
**Volatile element loss during planetary magma ocean phases.**  
Icarus. In press.

Domcke, Valerie (APC, Paris), Francesco Muia (Paris Cent. Cosmol. Phys.), Mauro Pieroni, Lukas T. Witkowski (APC, Paris). Apr 11, 2017.

**PBH dark matter from axion inflation**

<https://arXiv:1704.03464v2> [astro-ph.CO]

Domcke, Valerie, and Kai Schmitz. February 9, 2017

**A Unified Model of D-Term Inflation**

[https://arxiv.org/pdf/1702.02173](https://arxiv.org/pdf/1702.02173.pdf) [hep-ph]

Domcke, Valerie, Martin Spinrath April 11, 2017

**Detection prospects for the Cosmic Neutrino Background using laser interferometers**

<https://arxiv.org/abs/1703.08629> [astro-ph.CO]

Double Chooz Collaboration, 2017

**Cosmic-muon characterization and annual modulation measurement with Double Chooz detectors**

JCAP 1702 (2017) no.02, 017

Egron, E. et al, 2017,

**Single-dish and VLBI observations of Cygnus X-3 during the 2016 giant flare episode**

MNRAS Vol. 471, 2703

Egron, E. et al. (includant S. Corbel) 2017,

**Single-dish and VLBI observations of Cygnus X-3 during the 2016 giant flare episode**

Mon. Not. R. Astron. Soc., 471, 2703

Emami, Razieh; Tom Broadhurst, Pablo Jimeno, George Smoot, Raul Angulo, Jeremy Lim, Ming Chung Chu, Ruth Lazkoz 18 Novembre 2017

**Evidence of Neutrino Enhanced Clustering in a Complete Sample of Sloan Survey Clusters, Implying**

[arXiv:1711.05210v2](https://arXiv:1711.05210v2) [astro-ph.CO]

Emami, Razieh, and George F. Smoot. September 26, 2017.

**Observational Constraints on the Primordial Curvature Power Spectrum**

<https://arXiv:1705.09924v2> [astro-ph.CO]

Fadel A., Lepot K., Busigny V, Addad A, Troadec D., (2017).

**Iron mineralization and taphonomy of microfossils of the 2.45–2.21 Ga Turee Creek Group, Western Australia.**

Precamb. Res., 298, 530–551.

Franco D. and Saviano N., 2017

**Particle Physics in the Cosmos**

PoS NOW2016 (2017) 095

Gómez H., C. Goy, Y. Karyotakis, S. Katsanevas, J. Marteau, A. Tonazzo, D. Gibert, K. Jourde, M. Rosas-Carbajal, 2017

**Forward scattering effects on muon imaging**

JINST 12 (2017) no.12, P1201

Hervet O., Z. Meliani et al., 2017,

**Shocks in relativistic transverse stratified jets, a new paradigm for radio-loud AGN.**

A&A Vol. 606, 103

Higgins A.B., R.L.C. Starling, D. Götz, et al., 2017,  
**Investigating the nature of INTEGRAL Gamma-Ray Bursts and sub-threshold triggers with Swift follow-up**  
MNRAS, 470, 314

Hung C. P., A. S. Brun, A. Fournier, L. Jouve, O. Talagrand, and M. Zakari, 2017  
**Estimating the Solar Meridional Flow and Predicting the 11-yr Cycle Using Advanced Variational Data Assimilation Techniques, Space Weather of the Heliosphere: Processes and Forecasts**

Proceedings IAU Symposium No. 335, 2017, Claire Foullon & Olga Malandraki, ed

Hung, C. P. , A. S. Brun, A. Fournier, L. Jouve, O. Talagrand, and M. Zakari, 2017  
**Variational estimation of the large-scale time-dependent meridional circulation in the Sun: proofs of concept with a solar mean field dynamo model**

The Astrophysical Journal, 849:160 (24pp), 2017. doi: 10.3847/1538-4357/aa91d1

Hyodo R., Charnoz S., Ohstuski K., Genda H.

**Ring formation around giant planets through a single tidal disruption of a passing large Kuiper belt object.**

Icarus 282, 195-213, 2017.

Hyodo R., Charnoz S., Ohtsuki K., Genda H., 2017.

**Ring formation around giant planets by tidal disruption of a single passing large Kuiper belt object.**

Icarus 282, 195-213

Hyodo R., Genda H., Charnoz S., Rosenblatt P., 2017.

**On the Impact Origin of Phobos and Deimos.**

I. Thermodynamic and Physical Aspects. ApJ 845, id. 125

Jaupart, E., Charnoz, S. and Moreira, M. (2017)

**Primordial atmosphere incorporation in planetary embryos and the origin of terrestrial Neon**  
Icarus 293, 199-205.

Jaupart, E., Charnoz, S. and Moreira, M. 2017

**Primordial atmosphere incorporation in planetary embryos and the origin of terrestrial Neon.**

Icarus 293, 199-205.

Kato and Moynier. 2017

**Gallium isotopic evidence for a volatile depleted Moon.**

Science Advances. 3 (7), e1700571

Kato and Moynier. 2017.

**Gallium isotopic evidence for the origin of moderately volatile elements in planetary materials.**

479, 430-439. EPSL.

Kato, C., Moynier, F., Foriel, J., Teng, FZ, Puchtel, I. 2017

**The gallium isotopic composition of the bulk silicate Earth.**

Chem Geol. 448, 164-172

KM3NeT Collaboration: S. Adrián-Martínez et al.,

**KM3NeT 2.0 – Letter of Intent for ARCA and ORCA.**

J. Phys. G: Nucl. Part. Phys. 43 (2016) 084001 (published after the 2016 SC)

Kumar Hazra, Dhiraj, Daniela Paoletti, Mario Ballardini, Fabio Finelli, Arman Shafieloo, George F. Smoot, Alexei A. Starobinsky. Oct.3, 2017

**Probing features in inflaton potential and reionization history with future CMB space observations**

[https://arXiv:1710.01205v1 \[astro-ph.CO\]](https://arXiv:1710.01205v1 [astro-ph.CO])

Kumar Hazra, Dhiraj, George F. Smoot. August 16, 2017

**Witnessing the reionization history using Cosmic Microwave Background observation from Planck**

[https://arXiv:1708.04913v1 \[astro-ph.CO\]](https://arXiv:1708.04913v1 [astro-ph.CO])

Loh, A., Corbel, S., Dubus, G., 2017,

**Fermi/LAT detection of a transient gamma-ray flare in the vicinity of the binary star DG CVn**  
Mon. Not. R. Astron. Soc., 467, 4462,

Lü, P., C. Narteau, Z. Dong, O. Rozier, S. Courrech du Pont. 2017

**Unraveling raked linear dunes to assess sediment flux in complex dunefields,**  
Nature Communication 8, 14239, doi:10.1038/ncomms14239

Lucas A., S. Rodriguez, F. Lemonnier, A. Le Gall, C. Ferrari, P. Paillou, C. Narteau. 2017.

**Texture and composition of Titan's equatorial sand seas inferred from Cassini SAR data: Implications for aeolian transport and dune morphodynamics at Saturn's largest moon,**  
J. Geophys. Res. Planets.

Lv, P., C. Narteau, Z. Dong, O. Rozier, S. Courrech du Pont.

**Unravelling raked linear dunes to assess sediment flux in complex dunefields**  
Nature Communication 8, 14239, doi:10.1038/ncomms14239, 2017.

Magna, T. Zak, K., Pack, A., Moynier, F. Mougel, B., Skala R., Jonasova S., Mizera J., Randa, Z. 2017

**Zhamanshin astrobleme: O-Cr evidence for a carbonaceous chondrite impactor.**

Nature Communications. DOI: 10.1038/s41467-017-00192-5

Mahan, B. M., Siebert, J., Pringle, E., Moynier, F., 2017.

**Elemental partitioning and isotopic fractionation of Zn between metal and silicate and estimation of the S content of the Earth's core.**

Geochimica et Cosmochimica Acta, 196, 252-270, doi:10.1016/j.gca.2016.09.013

Mahan, B., Siebert, J., Pringle, E., Moynier, F.

**Elemental partitioning and isotopic fractionation of Zn between metal and silicate and geochemical estimation of the S content of the Earth's core.**

2017 GCA, 196, 252-270

Margutti, R.... Migliori, G. et al, 2017

**X-rays from the location of the Double-humpedTransient ASASSN-15lh**

ApJ, 836, 25

Meliani Z., F. Casse, P. Grandclement, E. Gourgoulhon, 2017,

**On tidal disruption of clouds and disk formation near boson stars**

Class. & Quant. Gravity Vol. 34, 225003

Migliori, G., Corbel, S., Tomsick, J. A., Kaaret, P., Fender, R. P., Tzioumis, A. K., Coriat, M., Orosz, J. A. 2017,

**Evolving morphology of the large-scale relativistic jets from XTE J1550-564**

Mon. Not. R. Astron. Soc. 472, 141,

Morard G., D. Andrault, D. Antonangeli, Y. Nakajima, A.L. Auzende, E. Boulard, S. Cervera, A. Clark, O.T. Lord, J. Siebert, V. Svitlyk, G. Garbarino, M. Mezouar.  
**Structure and density of Fe-C liquid alloys under high pressure.**  
In press. GRL

Moreira , M., Rouchon, V., Muller, E. and Noirz, S. (2017)  
**The xenon isotopic signature of the mantle beneath Massif Central**  
Geochemical Perspective Letters 6, 28–32.

Mougel, B., Moynier F., Goepel, C.  
**Chromium isotopic homogeneity between the Earth, the Moon and enstatite chondrites.**  
2017 EPSL. In press.

Mousis O., Charnoz S., et al., 2017.  
**Scientific rationale for Uranus and Neptune in situ explorations.**  
Submitted to PSS

Moynier, F., Fike, D., Menard,G., Fisher, W., Grotzigner, J., Agranier, A. 2017  
**Fe isotopes and the redox state of the ediacaran ocean.**  
Accepted with revision to Geology.

Moynier, F., Vance, D., Fujii, T., Savage, P. 2017  
**The Cu and Zn isotope geochemistry.**  
Mineralogy and Geochemistry. 2017. Vol. 82, 543-600

Moynier, F., Vance, D., Fujii, T., Savage, P. 2017.  
**The Cu and Zn isotope geochemistry.**  
Review in Mineralogy and Geochemistry. Vol. 82, 543-600

Muller, E., Ader, M., Chaduteau, C., Cartigny, P., Baton, F. and Philippot, P. (2017)  
**The use of chromium reductio analysis of organic carbon and inorganic sulfur isotope compositions in Archean rocks.**  
Chem. Geol. 457, 68-74.

Muller, E., Philippot, P., Rollion-Bard, C., Cartigny, P., Assayag, N., Marin-Carbonne, J., Ram Mohan, M. and Srinivasa Sarma, D. (2017)  
**Primary sulfur isotope signatures preserved in high-grade Archean barite deposits of the Sargur Group, Dharwar Craton, India.**  
Precamb. Res. 295, 38-47.

N. Globus, D. Allard, E. Parizot, C. Lachaud, T. Piran, 2017,  
**Can we reconcile the TA Excess and Hotspot with Auger Observations?**  
ApJ, 836, 163

Paniello, R., Moynier F., 2017  
**Zn isotopes composition of ordinary chondrites.**  
In revision to GCA.

Peron, S., Moreira, M., Putlitz, B. and Kurz, M.D. (2017)  
**Solar wind implantation supplied light volatiles during the first stage of Earth accretion**  
Geochemical perspective letters 3, doi: 10.7185/geochemlet.1718.

Peron, S., Moreira, M., Putlitz, B. and Kurz, M.D. 2017  
**Solar wind implantation supplied light volatiles during the first stage of Earth accretion.**  
GPL 3, doi: 10.7185/geochemlet.1718.

Philippot, P., Ávila, J., Killingsworth, B., Tessalina, S., Baton, F., Caquineau, T., Muller, E., Pecoits, E., Cartigny, P., Lalonde, S., Ireland, T., Thomazo, C., Van Kranendonk, M.J. and Busigny, V. (2017)  
**Globally asynchronous sulphur isotope signals require re-definition of the Great Oxidation Event.**  
Nature Communications.

Pringle, E., Moynier, F. 2017

**Rubidium isotopic composition of the Earth, meteorites, and the Moon: evidence for the origin of volatile loss during planetary accretion.**

EPSL. 473, 62-70

Pringle, E.A., Moynier, F., Beck, P., Paniello, R., Hezel, D.C., 2017.

**The origin of volatile element depletion in early solar system material: clues from Zn isotopes in chondrules.**

Earth Plan. Sci. Lett, EPSL, 468, 62-71

Rodovská, Z., Magna, T., Zak, K., Kato, C., Savage, P., Moynier, F., Skala, R., Jezek, J. 2017.

**Implications for behavior of volatile elements during impacts – zinc and copper systematics in sediments from the Ries impact structure and central European tektites.**

MAPS. In press.

Salafia O.S., M. Colpi, M. Branchesi, E. Chassande-Mottin, G. Ghirlanda, G. Ghisellini, S. Vergani, 2017,  
**Where and When : Optimal Sheding of the Electromagnetic Follow-up of Gravitational-wave Events Based on Counterpart Light-curve Model**

ApJ, 846, 62

Sforna, M.C., Daye, M., Philippot, P., somogyi, A., van Zuilen, M.A., Medjoubi, K., Gérard, M., Jamme, F., Dupraz, C., Braissant, O., Glunk, C. and Visscher, P. (2017)

**Patterns of metal distribution in hypersaline microbialites during early diagenesis: Implications for the fossil record.**

Geobiology 15, 259-279.

Shapiro, N.M., D.V. Droznin, S.Ya. Droznina, S.L. Senyukov, A.A. Gusev, and E.I. Gordeev (2017),

**Deep and shallow long-period volcanic seismicity linked by fluid-pressure transfer.**

Nature Geosciences, doi:10.1038/ngeo2952.

Shebalin P., C. Narteau., 2017.

**Depth dependent stress revealed by aftershocks**

Nature Communication 8, 14239, NCOMMS-17-04443B

Siebert, J., P. Sossi, I. Blanchard, B. Mahan, J. Badro, F. Moynier.

**Chondritic Mn/Na ratio and limited post-nebular volatile loss of the Earth.**

In revision to EPSL.

Sossi, P. Moynier, F. Chaussidon, M., Villeuneuve, J., Kato, C., Gounelle, M. 2017

**Early Solar System Irradiation revealed by correlated vanadium and beryllium isotope variations in meteorites.**

2017 Nature Astronomy. 10.1038/s41550-017-0055

Sossi, P., Moynier, F. 2017

**Chemical and isotopic kinship of iron in the Earth and Moon deduced from the lunar Mg-Suite.**

EPSL. 471, 125-135

Sossi, P., Nebel, O., O'Neill, H., Moynier, F.

**Progressive Accretion of Earth's Moderately Volatile Elements revealed by Zn Isotopes.**  
In review to Chem. Geol.

Spiga A. et al. (P. Lognonné, S. Rodriguez and A. Lucas included), 2017

**Atmospheric Science with InSight**

submitted to SSR.

Thiriet, C., C. Michaut, A.-C. Plesa, D. Breuer, 2017

**Hemispheric dichotomy in lithosphere thickness on Mars caused by differences in crustal structure and composition,**  
accepted to JGR Planets, 2017.

Vallée et al., (2017)

**Observation and modeling of the elasto-gravity signal preceding the direct seismic waves**  
Science 358, 1164–1168

Varniere P. & Vincent F., 2017,

**Reproducing the Correlations of Type C Low-frequency Quasi-periodic Oscillation Parameters in XTE J1550-564 with a Spiral Structure**

ApJ Vol. 834, 188

## 2016 (102 PUBLICATIONS)

Ader M., Thomazo C., Sansjofre P., Busigny V., Papineau D., Laffont R., Cartigny P., Halverson G.P., 2016. **Interpretation of the nitrogen isotopic composition of Precambrian sedimentary rocks: Assumptions and perspectives.** Chemical Geology 429, 93-110.

Adrián-Martínez S. et al , 2016,  
**Limits on Dark Matter Annihilation in the Sun using the ANTARES Neutrino Telescope**  
Physics Letters B, Volume 759, 10 August 2016, Pages 69–74

Adrián-Martínez S. et al. , 2016  
**Results of the search for Secluded Dark Matter in the Sun with the ANTARES neutrino telescope**  
Accepted by JCAP 25th April 2016

Adrián-Martínez S. et al. [KM3NeT Collaboration], (2016)  
**Letter of Intent for KM3NeT Phase 2**  
J.Phys. G43 no.8, 084001

Amor M., Busigny V., Louvat P., Gélabert A., Cartigny C., Durand-Dubief M., Ona-Nguema G., Alphandéry E., Chebbi I., Guyot F., 2016.  
**Mass-dependent and -independent signature of Fe isotopes in magnetotactic bacteria.**  
Science 352, 705-708.

Appleby, Stephen; Jinn-Ouk Gongb, Dhiraj Kumar Hazrab, Arman Shafielooe, Spyros Sysasab  
**Direct search for features in the primordial bispectrum**  
July 2016, ScienceDirect – Physics Letters B <http://dx.doi.org/10.1016/j.physletb.2016.07.004>

Armano et al. 2016  
**Sub-Femto-g Free Fall for Space-Based Gravitational Wave Observatories: LISA Pathfinder Results.**  
Physical ReviewLetters (2016) vol. 116 pp. 231101

Badro, J., J. Siebert, F. Nimmo,  
**An early geodynamo driven by exsolution of mantle components from Earth's core**  
Nature 536, 326, 2016.

Baghi Q., Métris G., Bergé J., Christophe B., Touboul P., Rodrigues M.,  
**Gaussian regression and power spectral density estimation with missing data: The MICROSCOPE space mission as a case study**  
2016, Physical ReviewD, 93, 122007

Baillie, K., S. Charnoz, E. Pantin.  
**Trapping of planets in an evolving protoplanetary disk : preferred time, location and planet mass.**  
A&A 590, id.A60, 2016.

Bordier, G.; Cammilleri, V. D.; Belier, B.; et al. AUG 2016  
**Superconducting Coplanar switch and phase shifter for CMB applications**  
JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 184 Issue: 3-4 Pages: 547-552

Broderick, J.W., ... Corbel, S. et al. 2016

**Low-radio-frequency eclipses of the redback pulsar J2215+5135 observed in the image plane with LOFAR**

MNRAS, 459, 2681.

Brunet, M., Le Friant, A., Boudon, G., Lafuerza, S., Talling, P., Hornbach, M., Lebas, E., Guyard, H., IODP Expedition 340 scientists, 2016.

**Composition, geometry and emplacement dynamics of a large volcanic island landslide offshore Martinique: from volcano flank-collapse to seafloor sediment failure?**

Geochemistry, Geophysics, Geosystems 17, doi:10.1002/2015GC006034

Carbone, D., .., ... Corbel, S. et al.

**New methods to constrain the radio transient rate: results from a survey of four fields with LOFAR**

MNRAS, 459, 316.

Cervantes-Cota, Jorge L., Salvador Galindo-Uribarri, George F. Smoot, Sept. 2016,

**A Brief History of Gravitational Waves**

Journal-ref: Universe 2016, 2(3), 22 e-print : arXiv:1609.09400 [astro-ph.HE]

Chaussidon, M. Deng, ZB, Villeneuve, J., Moureau, J., Richter, F., Moynier, F. 2016

**In situ analysis of non-traditional isotopes by SIMS and LA-MC-ICP-MS: key aspects and the example of Mg isotopes in olivines and silicate glasses**

Review in mineralogy and geochemistry. Vol. 82. 127-164

Chavrit, D., Moreira, M., Moynier, F.

**Estimation of the extraterrestrial  $^{3}\text{He}$  and  $^{20}\text{Ne}$  fluxes on Earth from He and Ne systematics in marine sediments.**

EPSL. 2016 436 10-18

Chen, H., Moynier, F., Bishop, C., Humayun, M. 2016

**Cosmogenic effects on Cu isotopes in IVB irons : Implication for the  $^{182}\text{Hf}$ - $^{182}\text{W}$  chronometry.**

2016 GCA. 182, 145-154.

Cordier B., C. Lachaud, D. Götz, S. Schanne, S. Vergani, E. Le Floc'h, L. Gosset, V. Beckmann, A. Claret, A. Goldwurm

**The Deep and Transient Universe: New Challenges and Opportunities Scientific prospects of the SVOM mission.**

White Book in support of the SVOM mission (via the svom.fr website and on astro-ph)

Covino S. and D. Götz, 2016

**Polarization of prompt and afterglow emission of Gamma-Ray Bursts**

Astronomical and Astrophysical Transactions, 29, 2

Creech, J.Baker, J., Handler, M., Lorand, JP, Storey, M. Moynier, F. Bizzarro, M.,

**Late accretion history of terrestrial planets inferred from stable isotopes.**

GPL. 2017. 2, 94-104

Crosley, M.K. ...Corbel, S. et al. 2016

**The Search for Signatures Of Transient Mass Loss in Active Stars**

ApJ, 830, 24.

DarkSide Collaboration

**CALIS - a CALibration Insertion System for the DarkSide-50 dark matter search experiment**  
arXiv:1611.027501 (2016), submitted to JINST.

DarkSide Collaboration, 2016

**The Electronics and Data Acquisition System for the DarkSide-50 Veto Detectors**  
JINST 11 (2016) P12007

DarkSide Collaboration, 2016

**The Veto System of the DarkSide-50 Experiment,**  
JINST 11 (2016) 3, 03016

DarkSide Collaboration, 2016

**Results from the first use of low radioactivity argon in a dark matter search,**  
Phys. Rev. D 93, 081101 (2016)

Das, Kumar; Valerie Domcke, Koushik Dutta, Dec 2016

**Supergravity Contributions to Inflation in models with non-minimal coupling to gravity**  
<https://arxiv.org/abs/1612.07075> [hep-ph]

Debono, Ivan, George F. Smoot, Sept. 2016,

**General Relativity and Cosmology: Unsolved Questions and Future Directions**  
Journal-ref: Universe. 2016; 2(4):23, e-print : arXiv:1609.09781 [astro-ph.CO]

Defouilloy, C., Cartigny, P., Assayag, N., Moynier, F., Barrat, JA. 2016

**High-precision Sulfur isotope (32S, 33S, 34S, 36S) composition of enstatite meteorites and implications of the formation and evolution of their parentbodies.**

GCA. 172, 393-409

Del Santo, M., ... Corbel, S, ... Rodriguez, J. et al.

**Spectral and timing evolution of the bright failed outburst of the transient black hole Swift J174510.8-262411**

2016, MNRAS, 456, 3585.

Del Santo, M., ... Corbel, S, ... Rodriguez, J. et al. 2016

**Spectral and timing evolution of the bright failed outburst of the transient black hole Swift J174510.8-262411**

MNRAS, 456, 3585.

Delage, P., F. Karakostas, A. Dhamaied, M. Belmokhtar, P. Lognonné, M. Golombek, E. De Laure, K. Hurst, J.-C. Dupla, S. Keddar, Y. Jun Cui and B. Banerdt, 2016

**An Investigation of the Mechanical Properties of Some Martian Regolith Simulants with Respect to the Surface Properties at the InSight Mission Landing Site**  
Space Sci. Rev., doi:10.1007/s11214-017-0339-7.

Domcke, Valerie, Mauro Pieroni, Pierre Binétruy; Mar 3, 2016

**Primordial gravitational waves for universality classes of pseudoscalar inflation**  
e-Print: arXiv:1603.01287 [astro-ph.CO]

Double Chooz Collaboration,

**Cosmic-muon characterization and annual modulation measurement with Double Chooz detectors**

arXiv:1611.07845 [hep-ex], published in JCAP 1702 (2017) no.02, 017

Double Chooz Collaboration, 2016

**Measurement of θ13 in Double Chooz using neutron captures on hydrogen with novel background rejection techniques**

JHEP 1601 (2016) 163

Double Chooz Collaboration, 2016

**Muon capture on light isotopes measured with the Double Chooz detector**

Phys.Rev. C93 (2016) no.5, 054608

Franco Davide, C. Giganti, P. Agnes, L. Agostino, B. Bottino, S. Davini, S. De Cecco, A. Fan, G. Fiorillo, C. Galbiati A.M. Goretti, E.V. Hungerford, Al. Ianni, An. Ianni, C. Jollet, L. Marini, C.J. Martoff, A. Meregaglia, L. Pagani, M. Pallavicini, E. Pantic, A. Pocar, A.L. Renshaw, B. Rossi, N. Rossi, Y. Suvorov, G. Testera, A. Tonazzo, H. Wang, S. Zavatarelli

**Solar neutrino detection in a large volume double-phase liquid argon experiment,**

JCAP 1608 (2016) 8, 017

Frank, W.B., N.M. Shapiro, A.L. Husker, V. Kostoglodov, A.A. Gusev, and M. Campillo,

**The evolving interaction of low-frequency earthquakes during transient slip**

Science Advances, 2, doi: 10.1126/sciadv.1501616, 2016.

Frank, W.B., N.M. Shapiro, A.L. Husker, V. Kostoglodov, A.A. Gusev, and M. Campillo, 2016.

**The evolving interaction of low-frequency earthquakes during transient slip**

Science Advances, 2, doi: 10.1126/sciadv.1501616.

Fürst, F. ...Corbel, S., ... Loh, A. et al.

**GRS 1739-278 observed at very low luminosity with XMM-Newton and NuSTAR**

ApJ, 832, 115.

G. Cella (INFN, Pisa), M. Pieroni (APC, Paris & Paris Cent. Cosmol. Phys.). June 16, 2016.

**A simple model for the evolution of a non-Abelian cosmic string network.**

e-Print: arXiv:1512.02117 [astro-ph.CO]

Gao, X., C. Narteau, O. Rozier.

**Controls on and effects of armoring and vertical sorting in aeolian dune fields: A numerical simulation study**

GRL 43, 2614–2622, doi:10.1002/2016GL068416, 2016.

Ghirlanda G., O.S. Salafia, ..., E. Chassande-Mottin, ..., D. Götz, S.D. Vergani, 2016

**Short GRBs at the dawn of the gravitational wave era**

2016, A&A, 594, 84

Girard, J., ... Corbel, S. et al., 2016

**Imaging Jupiter's radiation belts down to 127 MHz with LOFAR**

A&A, 587, 3.

Gómez H., C. Carloganu, D. Gibert, J. Jacquemier, Y. Karyotakis, J. Marteau, V. Niess, S. Katsanevas, A. Tonazzo. (2016)

**Studies on muon tomography for archaeological internal structures scanning**

J.Phys.Conf.Ser. 718 no.5, 052016

Hyodo R., Charnoz S., Genda H., Ohstsuki K., 2016.

**Formation of Centaurs' Rings through Their Partial Tidal Disruption during Planetary Encounters.**

ApJL 828, id L8

Hyodo R., Charnoz S., Genda H., Ohtsuki K. 2016.

**Formation of diverse ring-satellite systems around Centaurs through tidal disruption at close encounters with giant planet.**

ApJ letters. Id. L8

Japelj J., S. Vergani, ..., E. Le Floc'h, et al., 2016

**Are long gamma-ray bursts biased tracers of star formation? Clues from the host galaxies of the Swift/BAT6 complete sample of bright LGRBs. II. Star formation rates and metallicities at  $z < 1$**

A&A, 590, 129

Kato, C., Moynier, F., Foriel, J., Teng, FZ, Puchtel, I.

**The gallium isotopic composition of the bulk silicate Earth.**

Chemical Geology. 448, 164-172

KM3NeT Collaboration: S. Adrián-Martínez et al. 2016

**KM3NeT 2.0 – Letter of Intent for ARCA and ORCA**

J. Phys. G: Nucl. Part. Phys. 43 (2016) 084001

Kondratiev, V.I. ... Corbel, S. et al., 2016

**A LOFAR Census of Millisecond Pulsars,**

A&A, 585, 128.

Koulakov, I., E. Kasatkina, N.M. Shapiro, C. Jaupart, A. Vasilevsky, S. El Khrepy, N. Al-Arifi, and S. Smirnov,

**The feeder system of the Toba supervolcano from the slab to the shallow reservoir**

Nature Communications, DOI: 10.1038/ncomms12228, 2016c.

Koulakov, I., G. Maksotova, K. Jaxybulatov, E. Kasatkina, N.M. Shapiro, B.-G. Luehr, S. El Khrepy, N. Al-Arifi, (2016).

**Structure of magma reservoirs beneath Merapi and surrounding volcanic centers of Central Java modeled from ambient noise tomography**

Geochemistry, Geophysics, Geosystems, DOI: 10.1002/2016GC006442.

Lognonné, P., Karakostas, F., Rolland, L., Nishikawa, Y.,

**Modeling of atmospheric-coupled Rayleigh waves on planets with atmosphere: From Earth observation to Mars and Venus perspectives,**

J. Acoust. Soc. Am. 140 (2), 1447-1468, doi: 0001-4966/2016/140(2)/1447/22, 2016.

Loh A., Corbel S., Dubus G., Rodriguez J., Grenier I., Hovatta T., Pearson T., Readhead A., Fender R., Mooley K., 2016

**High-energy  $\gamma$ -ray observations of the accreting black hole V404 Cygni during its 2015 June outburst**

MNRAS Vol. 462, L111

Loh, A., Corbel, S., Dubus, G., Rodriguez, J., Grenier, I., Hovatta, T., Pearson, T., Readhead, A., Fender, R., Mooley, K. 2016

**High-energy gamma-ray observations of the accreting black hole V404 Cygni during its 2015 June outburst**

MNRAS, 462, L111.

Lv P., Z. Dong, C. Narteau, O. Rozier.

**Morphodynamic mechanisms for the formation of asymmetric barchans: improvement of the Bagnold and Tsoar models**

Environmental Earth Sciences, 75:259, doi:10.1007/s12665-015-5083-2, 2016.

Marcotte, B. ... Corbel, S. et al., 2016

**Orbital and superorbital variability of LS I +61 303 at low radio frequencies with GMRT and LOFAR**

2016, MNRAS, 456, 1791.

Marrocchi Y., Chaussidon M., Piani L. & Libourel G., 2016,

**Early scattering of the solar protoplanetary disk recorded in meteoritic chondrules.**

Science Adv. vol. 2, no 7, p. e1601001.

Meliani Z., Grandclément P., Casse F., Vincent, F.H., Straub, O., Dauvergne, F., 2016

**GR-AMRVAC code applications: accretion onto compact objects, boson stars versus black holes**

Classical and Quantum Gravity, Vol. 33, 15501

Michaut, C., M. Thiriet and C. Thorey, 2016.

**Insights into mare basalt thicknesses on the Moon from intrusivemagmatism,**

Phys. Earth Planet. Int. 257, p.187-192, doi:10.1016/j.pepi.2016.05.019

Migliori, G, 2016

**The high-energy view of young radio sources: X-ray and gamma-ray observations**

AN, 337, 52.

Migliori, G., ..., Loh, A., Corbel, S. et al. 2016

**First Detection in Gamma-Rays of a Young Radio Galaxy: Fermi-LAT Observations of the Compact Symmetric Object PKS 1718-649**

ApJ, 821, 103.

Montagner J.-P. et al., 2016

**Prompt gravity signal induced by the 2011 Tohoku-Oki earthquake**

Nature Communications 7, 133349 (2016)

Morag, N., Williford, K.H., Kitajima, K., Philippot, P., Van Kranendonk, M.J., Lepot, K., Valley, J.W., 2016.

**Microstructure -specific carbon isotopic signature of organic matter from ~3.5 Ga cherts of the Pilbara Craton support biologic origin.**

Precamb. Res. 275, 429–449.

Moreira M., S. Charnoz,

**Origin of the Neon Isotopes in Chondrites and on the Earth**

EPSL 433, 249-256, 2016

Muller E., Philippot P., Rollion-Bard C., Cartigny P., 2016.

**Multiple sulfur-isotope signatures in Archean sulfates and their implications for the chemistry and dynamics of the early atmosphere.**

Proc. Nat. Acad. Sci. 113, 7432–7437.

Nicola Bartolo, Chiara Caprini, Valerie Domcke, Daniel G. Figueroa, Juan Garcia-Bellido, Maria Chiara Guzzetti, Michele Liguori, Sabino Matarrese, Marco Peloso, Antoine Petiteau, Angelo Ricciardone, Mairi Sakellariadou, Lorenzo Sorbo, Gianmassimo Tasinato, Dec 2016

**Science with the space-based interferometer LISA. IV: Probing inflation with gravitational waves**

<https://arxiv.org/abs/1610.06481> [astro-ph.CO]

Nofrarias et al., 2016

**Optimal design of calibration signals in space-borne gravitational wave detectors.**

Physical ReviewD (2016) vol. 93 pp. 102004

Pecoits, E., Aubet, N.R., Heaman, L.M., Philippot, P., Rosiere, C., Veroslavsky, G., Konhauser, K.O., 2016.  
**U-Pb detrital zircon ages from some Neoproterozoic successions of Uruguay: provenance, stratigraphy and tectonic evolution.**  
Journal of South American Earth Sciences 71, 108-130.

Peris, C., Rmillard, R., Steiner, J., Vrtilek, S., Varniere P., Rodriguez, J., Pooley G., 2016  
**X-Ray Spectral Analysis of the Steady States of GRS1915+105**  
Astrophysical Journal, Vol. 822, 19

Péron, S., M. Moreira , A. Colin, L. Arbaret, N. Putlitz and M. D. Kurz. , 2016  
**Neon isotopic composition of the mantleconstrained by single vesicle analyses.**  
Earth and Planetary Science Letters 449: 145–154

Piet, H., J. Badro, F. Nabiei, T. Dennenwaldt, S.-H. Shim, M. Cantoni, C. Hébert, Ph. Gillet,  
**Spin andvalence dependence of iron partitioning in Earth's deep mantle**  
PNAS, 113, 11127, 2016.

Pires S., Bergé J., Baghi Q., Touboul P., Métris G., 2016,  
**Dealing with missing data in the MICROSCOPE space mission: An adaptation of inpainting to handle colored-noise data**  
Physical ReviewD, 94, 123015

Pringle, E., Moynier, F., Savage, P., Jackson, M., Moreira, M., Day, J. 2016  
**Silicon isotopes reveal recycled alteredoceanic crust in the mantle sources of ocean island basalts.**  
GCA. 189, 282-295

Punsly, B., Rodriguez J., Trunshkin S.A.,2016  
**The Accretion Flow-Discrete Ejection Connection in GRS 1915+105**  
Astrophysical Journal Vol. 826, 5

Rana, V., Loh, A., Corbel, S. et al.  
**Characterizing X-Ray and Radio Emission in the Black Hole X-Ray Binary V404 Cygni during Quiescence**  
2016, ApJ, 821, 103.

Rosenblatt P., S. Charnoz , K. Dunseath, M. Terao-Dunseath, A. Trinh, R. Hyodo, H. Genda, S. Toupin., 2016.  
**Accretion of Phobos and Deimos in an extended debris disc stirred by transient moons.**  
Nature Geoscience, 9, 581-583

Scully, S.; Burke, D.; O'Sullivan, C.; et al.  
**Optical design and modelling of the QUBIC instrument, a next-generation quasi-optical bolometric interferometer for cosmology**  
Edited by: Holland, WS; Zmuidzinas, J

Seydoux, L., N. M. Shapiro, J. de Rosny, and M. Landès (2016),  
**Spatial coherence of the seismic wavefield continuously recorded by the USArray**  
Geophys. Res. Lett., 43, doi:10.1002/2016GL070320.

Shafieloo A., Dhiraj Kumar Hazra, Varun Sahni, Alexei A. Starobinsky, 17 Oct 2016  
**Metastable Dark Energy with Radioactive-like Decay**  
[https://arxiv.org/abs/1610.05192 \[astro-ph.CO\]](https://arxiv.org/abs/1610.05192)

Shafieloo A., Kumar Hazra D., 24 Oct 2016

**Consistency of the Planck CMB data and  $\Lambda$ CDM cosmology**

<https://arxiv.org/abs/1610.07402> [astro-ph.CO]

Shahar, A., Savage, P., Moynier, F. 2016

**Stable isotope evidence for differentiation of planetesimals.**

In. Planetesimals: Early Differentiation and Consequences for Planets. Cambridge University Press, Eds: Elkins-

Siegert T., Diehl R., Greiner J., Krause M., Belodorov A., Cadolle-Bel M., Guglielmetti, F., Rodriguez J., Strong A., Zhang X., 2016

**Positron annihilation signatures associated with the outburst of the microquasar V404**

**Cygni**

Nature Vol. 531, 341

Siemiginowska, A., ... Migliori G. et al.; 2016

**X-Ray properties of the youngest radio sources and their environments**

2016, ApJ, 823, 57.

Sossi, P. Moynier, F. Chaussidon, M., Villeuneuve, J., Kato, C., Gounelle, M.

**Early Solar System Irradiation revealed by correlated vanadium and beryllium isotope variations in meteorites.**

Nature Astronomy. 2017.DOI: 10.1038/s41550-017-0055

Stewart, A. ... Corbel, S. et al. 2016

**LOFAR MSSS: detection of a low-frequency radio transient in 400 h of monitoring of the North Celestial Pole**

MNRAS, 456, 2321.

Stompor, Radek; Errard, Josquin; Poletti, Davide, Published: OCT 27 2016

**Forecasting performance of CMB experiments in the presence of complex foreground contaminants**

PHYSICAL REVIEWD Volume: 94 Issue: 8 Article Number: 083526

Tartari, A.; Aumont, J.; Banfi, S.; et al. AUG 2016

**QUBIC: A Fizeau Interferometer Targeting Primordial B-Modes**

Journal of low temperature physics volume: 184 issue: 3-4 pages: 739-745

Tartari, A.; Battistelli, E. S.; Piat, M.; et al., AUG 2016

**CMB Science: Opportunities for a Cryogenic Filter-Bank Spectrometer**

Journal of low temperature physics Volume: 184 Issue: 3-4 Pages: 780-785

Tartari, A.; Belier, B.; Bleurvacq, N.; et al., Jul 2016

**LEKIDs as mm-Wave Polarisation Analysers: Fabrication, Test Bench and Early Results**

JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 184 Issue: 1-2 Pages: 167-172

Tenton and Weis. PP 246-260.Singh, S., T. B. McCord, J-Ph. Combe, S. Rodriguez, T. Cornet, S. Le Mouélic, R. N. Clark, L. Maltagliati, and V. F.Chevrier.

**Acetylene on Titan's surface**

The Astrophysical Journal, 828:55 (8pp), 2016.

Thorey, C. and C. Michaut, 2016.

**Elastic-plated gravity currents with a temperature-dependent viscosity,**

J. FluidMech. 805, p. 88-117, doi:10.1017/jfm.2016.538

Varniere P. & Vincent F.H., 2016

**Impact of inclination on quasi-periodic oscillations from spiral structures**

Astronomy & Astrophysics Vol. 591, 36

Varniere P., Mignon-Risse R., Rodriguez J., 2016

**Impact of inclination on quasi-periodic oscillations from spiral structures**

Astronomy & Astrophysics Vol. 586, 4

Vincent F.H., Meliani Z., Grandclément P., Gourgoulhon E., Straub O., 2016

**Imaging a boson star at the Galactic center**

Classical and Quantum Gravity Vol. 33, 5015

Vorobieva, I., P. Shebalin, C. Narteau., 2016.

**Break of slope in earthquake size distribution and creep rate along the San Andreas Fault system,**

GRL 43, 6869–6875, doi:10.1002/2016GL069636

Wang, X., Planavsky, N., Hofmann, A., Philippot, P., Lalonde, S., Jemison, N., De Corte, B.P., Zoua, H., Larson, M.J., Tsikos, H., Knudsen, A., Reinhard, C.T., Johnson, T.M., Konhauser, K.O., 2016.

**A geochemical record of the emergence of oxygenic photosynthesis.**

Proc. Nat. Acad. Sci., in third review.

Yuan W., ..., B. Cordier, ..., D. Götz, et al., 2016

**Perspectives on Gamma-Ray Burst Physics and Cosmology with Next Generation Facilities**

Space Science Review, 202, 235

## 2015 (56 PUBLICATIONS)

Agostini, M; Appel, S; Bellini, G et al.; 2015

### **Spectroscopy of geoneutrinos from 2056 days of Borexino data**

PHYSICAL REVIEWD Volume: 92 Issue:6 3

Amor, M; Busigny, V; Durand-Dubief, M; Tharaud, M; Ona-Nguema, G; Gelabert, A; Alphandery, E; Menguy, N; Benedetti, MF; Chebbi, I;Guyot, F; 2015

### **Chemical signature of magnetotactic bacteria**

Proceedings Of The National Academy Of Sciences Of The United States Of America Volume: 112 Issue: 6 Issue: 1699-1703

Armijo, R; Lacassin, R; Coudurier-Curveur, A; Carrizo, D, 2015.

### **Coupled tectonic evolution of Andean orogeny and global climate**

Earth-Science Reviews, Volume: 143 Issue: 1-35

Badro, J; Brodholt, JP; Piet, H; Siebert, J; Ryerson, FJ;

### **Core formation and core composition from coupled geochemical and geophysical constraints**

Proceedings Of The National Academy Of Sciences Of The United States Of America Volume: 112 Issue: 40 Pages: 12310-12314

Baghi, Q; Metris, G; Berge, J; Christophe, B;Touboul, P; Rodrigues, M, 2015.

### **Regression analysis with missing data and unknown colored noise: Application to the MICROSCOPE space mission**

PHYSICAL REVIEWD Volume: 91 Issue: 6 Article Number: 062003

Baillie, K; Charnoz, S; Pantin, E

### **Time evolution of snow regions and planet traps in an evolving protoplanetary disk**

Astronomy & Astrophysics Volume: 577, Article Number: A65

Berge, J; Pires, S; Baghi, Q; Touboul, P; Metris, G; 2015

### **Dealing with missing data: An inpainting application to the MICROSCOPE space mission**

PHYSICAL REVIEWD Volume: 92 Issue: 11

Binetruy, P; Kiritis, E; Mabillard, J; Pieroni, M; Rosset, C; 2015.

### **Universality classes for models of inflation**

Journal Of Cosmology And Astroparticle Physics; Issue: 4, Article Number: 033

Binetruy, P.; Helou, A., 2015

### **The apparent Universe**

Classical And Quantum Gravity Volume: 32

Blanchard, I; Badro,; Siebert, J; Ryerson, FJ; 2015

### **Composition of the core from gallium metal-silicate partitioning experiments**

Earth And Planetary Science Letters; Volume: 427; Pages: 191-201

Charnay, B; Barth, E; Rafkin, S; Narteau, C; Lebonnois, S; Rodriguez, S; du Pont, SC; Lucas, A; 2015.

### **Methane storms as a driver of Titan's dune orientation**

Nature Geoscience Volume: 8 Issue: 5 Pages: 362-366

Charnoz, S; Aleon, J; Chaumard, N; Baillie, K; Taillifet, E; 2015

### **Growth of calcium-aluminum-rich inclusions by coagulation and fragmentation in a turbulent**

**protoplanetary disk: Observations and simulations**

ICARUS Volume: 252 Issue: 440-453

Charnoz, S; Michaut, C; 2015

**Evolution of the protolunar disk: Dynamics, cooling timescale and implantation of volatiles onto the Earth**

ICARUS

Colin, A; Moreira, M; Gautheron, C; Burnard, P; 2015

**Constraints on the noble gas composition of the deep mantle by bubble-by-bubble analysis of a volcanic glass sample from Iceland**

Chemical Geology Volume: 417 Pages: 173-183

Consolati, G; Franco, D; Jollet, C; Meregaglia, A; Minotti, A; Perasso, S; Tonazzo, A; 2015

**A new anti-neutrino detection technique based on positronium tagging with plastic scintillators**

Nuclear Instruments & Methods In Physics Research Section A-Accelerators Spectrometers Detectors And Associated Equipment Volume: 795 Pages: 364-369

Coudurier-Curveur, A; Lacassin, R; Armijo, R; 2015

**Andean growth and monsoon winds drive landscape evolution at SW margin of South America**

Earth And Planetary Science Letters Volume: 414 Issue: 87-99

Cseh, D; Webb,; Godet, O; Barret, D; Corbel, S; Coriat, M; Falcke, H; Farrell, SA; Kording, E (;Lenc, E; Wrobel, JM; 2015

**On the radio properties of the intermediate-mass black hole candidate ESO 243-49 HLX-1**

Monthly Notices Of The Royal Astronomical Society Volume: 446 Issue: 4 Pages: 3268-3276

de Jong, S; Beckmann, V; Soldi, S; Tramacere,; Gros, A; 2015 v

**High-energy emission processes in M87**

Monthly Notices Of The Royal Astronomical Society Volume: 450 Issue: 4 Issue: 4333-4341

Dorfman, SM; Badro, J; Rueff, JP; Chow, P; Xiao, YM; Gillet, P; 2015.

**Composition dependence of spin transition in (Mg,Fe)SiO<sub>3</sub> bridgemanite**

American Mineralogist, Volume: 100, Issue: 10 Pages: 2246-2253

Droznin, N.M. Shapiro, S.Ya. Droznina, S.L. Senyukov, V.N. Chebrov, and E.I. Gordeev (2015),

**Detecting and locating volcanic tremors on the Klyuchevskoy group of volcanoes (Kamchatka) based on correlations of continuous seismic records,**

Geophys. J. Int., 203, 1001–1010, doi:10.1093/gji/ggv342.

El Mellah, I; Casse, F; 2015

**Numerical simulations of axisymmetric hydrodynamical Bondi-Hoyle accretion on to a compact object**

Monthly Notices Of The Royal Astronomical Society Volume: 454 Issue: 3 Pages: 2657-2667

Fujii, T; Pringle, EA; Chaussidon, M; Moynier, F; 2015

**Isotope fractionation of Si in protonation/deprotonation reaction of silicic acid: A new pH proxy**

Geochimica Et Cosmochimica Acta Volume: 168 Pages: 193-205

Furi, E; Chaussidon, M; Marty, B; 2015.

**Evidence for an early nitrogen isotopic evolution in the solar nebula from volatile analyses**

**of a CAI from the CV3 chondrite NWA 8616**

Geochimica Et Cosmochimica Acta Volume: 153 Issue: 183-201

Gao, X; Narteau, C; Rozier, O; 2015

**Development and steady states of transverse dunes: A numerical analysis of dune pattern coarsening and giant dunes**

Journal Of Geophysical Research-Earth Surface, Volume: 120 Issue: 10 Pages: 2200-2219

Gao, X; Narteau, C; Rozier, O; du Pont, SC; 2015

**Phase diagrams of dune shape and orientation depending on sand availability**

Scientific Reports, Volume: 5, Article Number: 14677

Garsden, H; Girard, JN; Starck, JL; Corbel, S et al.

**LOFAR sparse image reconstruction**

Astronomy & Astrophysics Volume: 575, Article Number: A90

Ghirlanda, G; Salvaterra, R et al.

**Accessing the population of high-redshift Gamma Ray Bursts**

Monthly notices of the royal astronomical society Volume: 448 Issue: 3 Issue: 2514-2524

Gleyzes, J; Langlois, D; Piazza, F; Vernizzi, F, 2015.

**New Class of Consistent Scalar-Tensor Theories**

PHYSICAL REVIEW LETTERS Volume: 114 Issue: 21, Article Number: 211101

Gudkova, T; Lognonne, P; Miljkovic, K; Gagnepain-Beyneix, J; 2015

**Impact cutoff frequency - momentum scaling law inverted from Apollo seismic data**

Earth And Planetary Science Letters, Volume: 427, Pages: 57-65

Harms, J; Ampuero, JP; Barsuglia, M; Chassande-Mottin, E; Montagner, JP; Somalia, SN (Somala, S. N.); Whiting, ; 2015.

**Transient gravity perturbations induced by earthquake rupture**

Geophysical journal international, Volume: 201 Issue: 3 Pages: 1416-1425

Hatano, T; Narteau, C; Shebalin, P; 2015.

**Author Identifiers: Common dependence on stress for the statistics of granular avalanches and earthquakes** SCIENTIFIC REPORTS Volume: 5 Article Number: 12280

Hopkins, AM; Whiting, MT; Seymour, N; Chow, KE; Norris, RP; Bonavera, L; Breton, R; Carbone, D; Ferrari, C; Franzen, TMO; Garsden, H; Gonzalez-Nuevo, J; Hales, CA; Hancock, PJ; Heald, G; Herranz, D; Huynh, M; Jurek, RJ; Lopez- Caniego, M; Massardi, M; Mohan, N; Molinari,; Orru,; Paladino, R; Pestalozzi, M; Pizzo, R; Rafferty, D; Rottgering, HJA; Rudnick, L; Schisano, E; Shulevski, A; Swinbank, J; Taylor, R; van der Horst, AJ, 2015

**The ASKAP/EMU Source Finding Data Challenge**

Publications Of The Astronomical Society Of Australia Volume: 32 Article Number: e037

Hyodo, R; Ohtsuki, K; 215.

**Saturn's F ring and shepherd satellites a natural outcome of satellite system formation**

Nature Geoscience Volume: 8 Issue: 9 Issue: 686-+

Jourde, K; Gibert, D; Marteau, J; 2015.

**Improvement of density models of geological structures by fusion of gravity data and cosmic muon radiographies**

Geoscientific Instrumentation Methods And Data Systems Volume: 4 Issue: 2 Issue: 177-188

Kato, C; Moynier, F; Valdes, MC; Dhaliwal, JK; Day, JMD 2015.

**Extensive volatile loss during formation and differentiation of the Moon**

NATURE COMMUNICATIONS Volume: 6 Article Number: 7617

Khalil, M; Laurent, P; Lebrun, F; Dolgorouky, Y; Limousin, O; Bertoli, W; Breelle, E; 2015

**WPOL, a future space Compton wide field polarimeter: Optimization for polarimetry**

Nuclear Instruments & Methods In Physics Research Section A-Accelerators Spectrometers Detectors And Associated Equipment Volume: 787 Pages: 288-292

Konhauser, KO; Robbins, LJ; Pecoits, E; Peacock, C; Kappler, A; Lalonde, SV; 2015

**The Archean Nickel Famine Revisited**

ASTROBIOLOGY Volume: 15 Issue: 10 Pages: 804-815

Kral, Q; Thebault, P; Augereau, JC; Boccaletti, A; Charnoz, S; 2015.

**Signatures of massive collisions in debris discs A self-consistent numerical model**

Astronomy & Astrophysics Volume: 573 Article Number: A39

Lu, WB; Kumar, P; Smoot, GF; 2015

**Probing massive stars around gamma-ray burst progenitors**

Monthly Notices Of The Royal Astronomical Society, Volume: 453, Issue: 2, Pages: 1458-1470

Lucas, A; Narteau, C; Rodriguez, S; Rozier, O; Callot, Y; Garcia, A; du Pont, SC; 2015

**Sediment flux from the morphodynamics of elongating linear dunes**

Geology Volume: 43 Issue: 11 Pages: 1027-1030

Luu, TH; Young, ED; Gounelle,; Chaussidon, M; 2015

**Short time interval for condensation of high-temperature silicates in the solar accretion disk**

Proceedings Of The National Academy Of Sciences Of The United States Of America Volume: 112 Issue: 5 Issue: 1298-1303

Mandea, M; Narteau, C; Panet, I; Le Mouel, JL; 2015.

**Gravimetric and magnetic anomalies produced by dissolution-crystallization at the core-mantle boundary**

Journal Of Geophysical Research-Solid Earth Volume: 120 Issue: 9 Pages: 5983-6000

Marrocchi, Y; Chaussidon, M

**A systematic for oxygen isotopic variation in meteoritic chondrules**

Earth And Planetary Science Letters Volume: 430 Pages: 308-315

Melian, Z Vincent, FH; Grandclement, P; Gourgoulhon, E; Monceau-Baroux, R; Straub, O; 2015

**Circular geodesics and thick tori around rotating boson stars**

Classical And Quantum Gravity Volume: 32 Issue: 23

Miljkovic, K; Wieczorek, MA; Collins, GS; Solomon, SC; Smith, DE; Zuber, MT; 2015

**Excavation of the lunar mantle by basin-forming impact events on the Moon**

Earth And Planetary Science Letters Volume: 409 Issue: 243-251

Morlino, G; Gabici, S; 2015

**Cosmic ray penetration in diffuse clouds**

Monthly Notices Of The Royal Astronomical Society Volume: 451 Issue: 1 Issue: L100-L104

Nicolis, A; Penco, R; Piazza, F; Rattazzi, R; 2015

**Zoology of condensed matter: framids, ordinary stuff, extra-ordinary stuff**

Journal Of High Energy Physics, Issue: 6 Article Number: 155

Paizis, A; Nowak, MA; Rodriguez, J; Segreto, A; Chaty, S; Rau, A; Chenevez, J; Del Santo, M; Greiner, J; Schmidl, S; 2015

**Investigating the nature of igr j17454-2919 using x-ray and near-infrared observations**

Astrophysical Journal Volume: 808

Pecoits, E; Smith, ML; Catling, DC; Philippot, P; Kappler, A; Konhauser, KO; 2015

**Atmospheric hydrogen peroxide and Eoarchean iron formations**

Geobiology Volume: 13 Issue: 1 Issue: 1-14

Rahoui, F; Tomsick, JA; Coriat, M; Corbel, S; Furst, F; Gandhi, P; Kalemci, E; Migliari, S; Stern, D; Tzioumis, AK; 2015

**Optical and near-infrared spectroscopy of the black hole swift j1753.5-0127**

Astrophysical Journal Volume: 810 Issue: 2

Rodriguez, J; Bel, MC; Alfonso-Garzon, J; Siegert, T; Zhang, XL; Grinberg, V; Savchenko, V; Tomsick, JA; Chenevez, J; Clavel, M; Corbel, S; Diehl, R; Domingo, A; Gouiffes, C; Greiner, J; Krause, MGH; Laurent, P; Loh, A; Markoff, S; Mas-Hesse, JM; Miller-Jones, JCA; Russell, DM; Wilms, J; 2015

**Correlated optical, X- ray, and gamma- ray flaring activity seen with INTEGRAL during the 2015 outburst of V404 Cygni**

Astronomy & Astrophysics Volume: 581 Article Number: L9

Rodriguez, J; Grinberg, V; Laurent, P; Bel, MC; Pottschmidt, K; Pooley, G; Bodaghee, A; Wilms, J; Gouiffes, C; 2015

**Spectral state dependence of the 0.4-2 mev polarized emission in cygnus x-1 seen with integral/ibis, and links with the ami radio data**

Astrophysical Journal Volume: 807 Issue: 1

Swinbank, JD; Staley, TD; Molenaar, GJ; et al.

**The LOFAR Transients Pipeline**

astronomy and computing, Volume: 11 Issue: 25-48

Teitler, Y; Philippot, P; Gerard, M; Le Hir, G; Fluteau, F; Ader, M; 2015

**Ubiquitous occurrence of basaltic-derived paleosols in the Late Archean Fortescue Group, Western Australia**

Precambrian Research Volume: 267 Issue: 1-27

Thorey, C; Michaut, C; Wieczorek, M; 2015

**Gravitational signatures of lunar floor-fractured craters**

Earth And Planetary Science Letters Volume: 424 Issue: 269-279

Tomsick, JA; Rahoui, F; Kolehmainen, M et al.

**THE ACCRETING BLACK HOLE SWIFT J1753.5-0127 FROM RADIO TO HARD X-RAY**

Astrophysical Journal Volume: 808 Issue: 1

## 2014 (48 PUBLICATIONS)

Abe, Y.; dos Anjos, J. C.; Barriere, J. C.; et al.

### **Background-independent measurement of theta(13) in Double Chooz**

PHYSICS LETTERS B Volume: 735 Pages: 51-56 Published: JUL 30 2014

Abe, Y.; dos Anjos, J. C.; Barriere, J. C.; et al.

### **Precision muon reconstruction in Double Chooz**

Nuclear Instruments & Methods In Physics Research Section A-Accelerators Spectrometers Detectors And Associated Equipment Volume: 764 Pages: 330-339 Published: NOV 11 2014

Abe, Y.; dos Anjos, J. C.; Barriere, J. C.; et al. Group Author(s): Double Chooz Collaboration

### **Improved measurements of the neutrino mixing angle theta(13) with the Double Chooz detector**

JOURNAL OF HIGH ENERGY PHYSICS Issue: 10 Article Number: 086 Published: OCT 14 2014

Abe, Y.; dos Anjos, J. C.; Barriere, J. C.; et al. Group Author(s): Double Chooz Collaboration

### **Ortho-positronium observation in the Double Chooz experiment**

Journal Of High Energy Physics Issue: 10 Article Number: 032 Published: OCT 6 2014

Agarwalla, S. K.; Agostino, L.; Aittola, M.; et al. Author(s): LAGUNA-LBNO Collaboration

### **The mass-hierarchy and CP-violation discovery reach of the LBNO long-baseline neutrino experiment Group**

Journal Of High Energy Physics, Issue: 5 Article Number: 094 Published: MAY 21 2014

Baillie, Kevin; Charnoz, Sebastien

### **Time evolution of a viscous protoplanetary disk with a free geometry: toward a more self-consistent picture**

Astrophysical Journal Volume: 786 Issue: 1 Article Number: 35 Published: MAY 1 2014

Bassa, C. G.; Patruno, A.; Hessels, J. W. T.; et al.

### **A state change in the low-mass X-ray binary XSS J12270-4859**

Monthly Notices Of The Royal Astronomical Society Volume: 441 Issue: 2 Pages: 1825-1830 Published: JUN 2014

Bower, Geoffrey C.; Markoff, Sera; Brunthaler, Andreas; et al.

### **The intrinsic two-dimensional size of Sagittarius A**

Astrophysical Journal Volume: 790 Issue: 1 Article Number: 1 Published: JUL 20 2014

Carbone, Daniele; Gibert, Dominique; Marteau, Jacques; et al.

### **An experiment of muon radiography at Mt Etna (Italy)**

GEOPHYSICAL JOURNAL INTERNATIONAL Volume: 196 Issue: 2 Pages: 633-643 Published: FEB 2014

Curran, P. A.; Coriat, M.; Miller-Jones, J. C. A.; et al.

### **The evolving polarized jet of black hole candidate Swift J1745-26**

Monthly Notices Of The Royal Astronomical Society Volume: 437 Issue: 4 Pages: 3265-3273 Published: FEB 2014

du Pont, Sylvain Courrech; Narteau, Clement; Gao, Xin

### **Two modes for dune orientation**

GEOLOGY Volume: 42 Issue: 9 Pages: 743-746 Published: SEP 2014

Dumas, G.; Vaupre, S.; Ceccarelli, C.; et al.

**LOCALIZED SiO EMISSION TRIGGERED BY THE PASSAGE OF THE W51C SUPERNOVA REMNANT SHOCK**

Astrophysical Journal LETTERS Volume: 786 Issue: 2 Article Number: L24 Published: MAY 10 2014

Francois, C.; Philippot, P.; Rey, P.; et al.

**Burial and exhumation during Archean sagduction in the East Pilbara Granite-Greenstone Terrane**

Earth And Planetary Science Letters Volume: 396 Pages: 235-251 Published: JUN 15 2014

Fujii, Toshiyuki; Moynier, Frederic; Blichert-Toft, Janne; et al.

**Density functional theory estimation of isotope fractionation of Fe, Ni, Cu, and Zn among species relevant to geochemical and biological environments**

Geochimica Et Cosmochimica Acta Volume: 140 Pages: 553-576 Published: SEP 1 2014

Gabici, S.; Aharonian, F. A., 2014

**Hadronic gamma-rays from RX J1713.7-3946?**

Monthly Notices Of The Royal Astronomical Society Volume: 445 Issue: 1 Pages: L70-L73 Published: NOV 21 2014

Gallo, E.; Miller-Jones, J. C. A.; Russell, D. M.; et al.

**The radio/X-ray domain of black hole X-ray binaries at the lowest radio luminosities**

Monthly Notices Of The Royal Astronomical Society Volume: 445 Issue: 1 Pages: 290-300 Published: NOV 21 2014

Goetz, D.; Laurent, P.; Antier, S.; et al.

**GRB 140206A: the most distant polarized gamma-ray burst**

Monthly Notices Of The Royal Astronomical Society Volume: 444 Issue: 3 Pages: 2776-2782 Published: NOV 1 2014

Hardisty, Dalton S.; Lu, Zunli; Planavsky, Noah J.; et al.

**An iodine record of Paleoproterozoic surface ocean oxygenation**

Geology Volume: 42 Issue: 7 Pages: 619-622 Published: JUL 2014

Hazra, Dhiraj Kumar; Shafieloo, Arman; Smoot, George F.; et al.

**Inflation with Whip-Shaped Suppressed Scalar Power Spectra**

PHYSICAL REVIEW LETTERS Volume: 113 Issue: 7 Article Number: 071301 Published: AUG 13 2014

Hazra, Dhiraj Kumar; Shafieloo, Arman; Smoot, George F.; et al.

**Wiggly whipped inflation**

Journal Of Cosmology And Astroparticle Physics Issue: 8 Article Number: 048 Published: AUG 2014

Javoy, Marc; Kaminski, Edouard, 2014

**Earth's Uranium and Thorium content and geoneutrinos fluxes based on enstatite chondrites**

Earth And Planetary Science Letters Volume: 407 Pages: 1-8 Published: DEC 1 2014

Kouchner, Antoine

**Next-generation atmospheric neutrino experiments**

PHYSICS OF THE DARK UNIVERSE Volume: 4 Pages: 60-74 Published: SEP 2014

Kumar, Pawan; Smoot, George F.

**Some implications of inverse-Compton scattering of hot cocoon radiation by relativistic jets in gamma-ray bursts**

Monthly Notices Of The Royal Astronomical Society Volume: 445 Issue: 1 Pages: 528-543 Published: NOV 21 2014

Laneuville, M.; Wieczorek, M. A.; Breuer, D.; et al.

**A long-lived lunar dynamo powered by core crystallization**

Earth And Planetary Science Letters Volume: 401 Pages: 251-260 Published: SEP 1 2014

Le Hir, G.; Teitler, Y.; Fluteau, F.; et al.

**The faint young Sun problem revisited with a 3-D climate-carbon model - Part 1**

CLIMATE OF THE PAST Volume: 10 Issue: 2 Pages: 697-713 Published: 2014

Lucas, Antoine; Rodriguez, Sebastien; Narteau, Clement; et al.

**Growth mechanisms and dune orientation on Titan**

Geophysical Research Letters Volume: 41 Issue: 17 Pages: 6093-6100 Published: SEP 16 2014

Marin-Carbonne, J.; Robert, F.; Chaussidon, M.

**The silicon and oxygen isotope compositions of Precambrian cherts: A record of oceanic paleo-temperatures?**

Precambrian Research, Volume: 247 Pages: 223-234 Published: JUL 2014

Marlowe, H.; Kaaret, P.; Lang, C.; et al.

**Spectral state transitions of the Ultraluminous X-ray Source IC 342 X-1**

Monthly Notices Of The Royal Astronomical Society Volume: 444 Issue: 1 Pages: 642-650 Published: OCT 11 2014

Marteau, Jacques; d'Ars, Jean de Bremond; Gibert, Dominique; et al.

**Implementation of sub-nanosecond time-to-digital convertor in field-programmable gate array: applications to time-of-flight analysis in muon radiography**

MEASUREMENT SCIENCE & TECHNOLOGY Volume: 25 Issue: 3 Article Number: 035101 Published: MAR 2014

Mishra, Ritesh Kumar; Chaussidon, Marc

**Fossil records of high level of Fe-60 in chondrules from unequilibrated chondrites**

Earth And Planetary Science Letters Volume: 398 Pages: 90-100 Published: JUL 15 2014

Morard, G.; Siebert, J.; Badro, J.

**Partitioning of Si and platinum group elements between liquid and solid Fe-Si alloys**

Geochimica Et Cosmochimica Acta Volume: 132 Pages: 94-100 Published: MAY 1 2014

Perasso, S.; Consolati, G.; Franco, D.; et al.

**Measurement of ortho-positronium properties in liquid scintillators**

JOURNAL OF INSTRUMENTATION Volume: 9 Article Number: C03028 Published: MAR 2014

Piazza, Federico; Steigerwald, Heinrich; Marinoni, Christian

**Phenomenology of dark energy: exploring the space of theories with future redshift surveys**

Journal Of Cosmology And Astroparticle Physics Issue: 5 Article Number: 043 Published: MAY 2014

Ping, Lu; Narteau, Clement; Dong, Zhibao; et al.

**Emergence of oblique dunes in a landscape-scale experiment**

Nature Geoscience Volume: 7 Issue: 2 Pages: 99-103 Published: FEB 2014

Price, M. C.; Ramkissoon, N. K.; McMahon, S.; et al.

**Limits on methane release and generation via hypervelocity impact of Martian analogue materials**

International journal of astrobiology Volume: 13 Issue: 2 Special Issue: SI Pages: 132-140 Published: APR 2014

Punsly, Brian; Rodriguez, Jerome; Trushkin, Sergei A.

**Evidence of elevated x-ray absorption before and during major flare ejections in grs 1915+105**

Astrophysical Journal Volume: 783 Issue: 2 Article Number: 133 Published: MAR 10 2014

Rozier, Olivier; Narteau, Clement

**A real-space cellular automaton laboratory**

Earth Surface Processes And Landforms; Volume: 39 Issue: 1 Pages: 98-109 Published: JAN 2014

Sforna, Marie Catherine; Philippot, Pascal; Somogyi, Andrea; et al.

**Evidence for arsenic metabolism and cycling by microorganisms 2.7 billion years ago**

Nature Geoscience Volume: 7 Issue: 11 Pages: 811-815 Published: NOV 2014

Soldi, S.; Beckmann, V.; Baumgartner, W. H.; et al.

**Long-term variability of AGN at hard X-rays**

Astronomy & Astrophysics Volume: 563 Article Number: A57 Published: MAR 2014

Tajeddine, R.; Rambaux, N.; Lainey, V.; et al.

**Constraints on Mimas' interior from Cassini ISS libration measurements**

SCIENCE Volume: 346 Issue: 6207 Pages: 322-324 Published: OCT 17 2014

Tartari, A.; Belier, B.; Calvo, M.; et al.

**A mm-Wave Polarisation Analyser Using LEKIDs: Strategy and Preliminary Numerical Results**

Journal Of Low Temperature Physics Volume: 176 Issue: 3-4 Pages: 524-529 Published: AUG 2014

Teitler, Yoram; Le Hir, Guillaume; Fluteau, Frederic; et al.

**Investigating the Paleoproterozoic glaciations with 3-D climate modeling**

Earth And Planetary Science Letters Volume: 395 Pages: 71-80 Published: JUN 1 2014

Valet, Jean-Pierre; Besse, Jean; Kumar, Anil; et al.

**The intensity of the geomagnetic field from 2.4 Ga old Indian dykes**

Geochemistry Geophysics Geosystems Volume: 15 Issue: 6 Pages: 2426-2437 Published: JUN 2014

van Zuilen, M. A.; Philippot, P.; Whitehouse, M. J.; et al.

**Sulfur isotope mass-independent fractionation in impact deposits of the 3.2 billion-year-old Mapepe Formation, Barberton Greenstone Belt, South Africa**

Geochimica Et Cosmochimica Acta Volume: 142 Pages: 429-441 Published: OCT 1 2014

Vargas, G.; Klinger, Y.; Rockwell, T. K.; et al., 2014

**Probing large intraplate earthquakes at the west flank of the Andes**

Geology Volume: 42 Issue: 12 Pages: 1083-1086 Published: DEC 2014

Vaupre, S.; Hily-Blant, P.; Ceccarelli, C.; et al.

**Cosmic ray induced ionisation of a molecular cloud shocked by the W28 supernova remnant**

Astronomy & Astrophysics Volume: 568 Article Number: A50 Published: AUG 2014

Vincent, F. H.; Paumard, T.; Perrin, G.; et al.

**Distinguishing an ejected blob from alternative flare models at the Galactic Centre with GRAVITY**

Monthly Notices Of The Royal Astronomical Society Volume: 441 Issue: 4 Pages: 3477-3487 Published: JUL 11 2014

Zhang, D.; Yang, X.; Rozier, O.; et al.

**Mean sediment residence time in barchan dunes**

Journal Of Geophysical Research-Earth Surface Volume: 119 Issue: 3 Pages: 451-463 Published: MAR 2014

## 2013 (15 PUBLICATIONS)

Abe, Y.; Aberle, C.; dos Anjos, J. C.; et al.

**First measurement of theta(13) from delayed neutron capture on hydrogen in the Double Chooz experiment**

PHYSICS LETTERS B Volume: 723 Issue: 1-3 Pages: 66-70 Published: JUN 10 2013

Abe, Y.; Aberle, C.; dos Anjos, J. C.; et al. Group Author(s): Double Chooz Collaboration

**Direct measurement of backgrounds using reactor-off data in Double Chooz**

Physical ReviewdVolume: 87 Issue: 1 Article Number: 011102 Published: JAN 8 2013

Agostino, L.; Buizza-Avanzini, M.; Marafini, M.; et al.

**Future large-scale water-Cherenkov detector**

Physical Reviewspecial Topics-Accelerators And Beams, Volume: 16 Issue: 6 Article Number: 061001 Published: JUN 19 2013

Bejar-Pizarro, Marta; Socquet, Anne; Armijo, Rolando; et al.

**Andean structural control on interseismic coupling in the North Chile subduction zone**

Nature Geoscience Volume: 6 Issue: 6 Pages: 462-467 Published: JUN 2013

Bellini, G.; Benziger, J.; Bick, D.; et al. Group Author(s): Borexino Collaboration

**Cosmogenic Backgrounds in Borexino at 3800 m water-equivalent depth**

Journal Of Cosmology And Astroparticle Physics Issue: 8 Article Number: 049 Published: AUG 2013

Bellini, G.; Benziger, J.; Bick, D.; et al. Group Author(s): Borexino Collaboration

**Measurement of geo-neutrinos from 1353 days of Borexino**

PHYSICS LETTERS B Volume: 722 Issue: 4-5 Pages: 295-300 Published: MAY 24 2013

Clavel, M.; Terrier, R.; Goldwurm, A.; et al.

**Echoes of multiple outbursts of Sagittarius A(star) revealed by Chandra**

Astronomy & Astrophysics Volume: 558 Article Number: A32 Published: OCT 2013

Consolati, G.; Franco, D.; Hans, S.; et al.

**Characterization of positronium properties in doped liquid scintillators**

PHYSICAL REVIEWC Volume: 88 Issue: 6 Article Number: 065502 Published: DEC 6 2013

Cristofari, P.; Gabici, S.; Casanova, S.; et al.

**Acceleration of cosmic rays and gamma-ray emission from supernova remnants in the Galaxy**

Monthly Notices Of The Royal Astronomical Society Volume: 434 Issue: 4 Pages: 2748-2760 Published: OCT 2013

Franco, D.; Jollet, C.; Kouchner, A.; et al.

**Mass hierarchy discrimination with atmospheric neutrinos in large volume ice/water Cherenkov detectors**

Journal Of High Energy Physics Issue: 4 Article Number: 008 Published: APR 2013

Jourde, K.; Gibert, D.; Marteau, J.; et al.

**Experimental detection of upward going cosmic particles and consequences for correction of density radiography of volcanoes**

GEOPHYSICAL RESEARCH LETTERS Volume: 40 Issue: 24 Pages: 6334-6339 Published: DEC 28 2013

Laneuville, M.; Wieczorek, M. A.; Breuer, D.; et al.

**Asymmetric thermal evolution of the Moon**

Journal of geophysical research-planets Volume: 118 Issue: 7 Pages: 1435-1452 Published: JUL 2013

Miljkovic, Katarina; Collins, Gareth S.; Mannick, Sahil; et al.

**Morphology and population of binary asteroid impact craters**

Earth And Planetary Science Letters Volume: 363 Pages: 121-132 Published: FEB 1 2013

Miljkovic, Katarina; Wieczorek, Mark A.; Collins, Gareth S.; et al.

**Asymmetric Distribution of Lunar Impact Basins Caused by Variations in Target Properties**

SCIENCE Volume: 342 Issue: 6159 Pages: 724-726 Published: NOV 8 2013

Wieczorek, Mark A.; Neumann, Gregory A.; Nimmo, Francis; et al.

**The Crust of the Moon as Seen by GRAIL**

SCIENCE Volume: 339 Issue: 6120 Pages: 671-675 Published: FEB 8 2013

## 2012 (6 PUBLICATIONS)

Abe, Y.; Aberle, C.; dos Anjos, J. C.; et al. Group Author(s): Double Chooz Collaboration  
**First test of Lorentz violation with a reactor-based antineutrino experiment**  
Physical Reviewd Volume: 86 Issue: 11 Article Number: 112009 Published: DEC 28 2012

Crida, A.; Charnoz, S.  
**Formation of Regular Satellites from Ancient Massive Rings in the Solar System**  
SCIENCE Volume: 338 Issue: 6111 Pages: 1196-1199 Published: NOV 30 2012

Kumar, Anil; Nagaraju, E.; Besse, Jean; et al.  
**New age, geochemical and paleomagnetic data on a 2.21 Ga dyke swarm from south India: Constraints on Paleoproterozoic reconstruction**  
PRECAMBRIAN RESEARCH Volume: 220 Pages: 123-138 Published: NOV 2012

Abe, Y.; Aberle, C.; dos Anjos, J. C.; et al. Group Author(s): Double Chooz Collaboration  
**Reactor ( $\nu$ )over-bar(e) disappearance in the Double Chooz experiment**  
Physical Reviewd Volume: 86 Issue: 5 Article Number: 052008 Published: SEP 18 2012

Philippot, Pascal; van Zuijen, Mark; Rollion-Bard, Claire  
**Variations in atmospheric sulphur chemistry on early Earth linked to volcanic activity**  
Nature Geoscience Volume: 5 Issue: 9 Pages: 668-U100 Published: SEP 2012

Zhang, Deguo; Narteau, Clement; Rozier, Olivier; et al.  
**Morphology and dynamics of star dunes from numerical modelling**  
Nature Geoscience Volume: 5 Issue: 7 Pages: 463-467 Published: JUL 2012