

## Annexe A

### Fédération Doeblin FR 2800 CNRS

### Publications Fédération Doeblin

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#### Publications des projets de la Fédération Doeblin (2018-2019-2020-2021-2022)

(Les noms des porteurs de projets sont en bleu)

J.-P. Rivet, F. Vakili, O. Lai, D. Vernet, M. Fouché, W. Guerin, G. Labeyrie, R. Kaiser, Optical long baseline intensity interferometry: prospects for stellar physics, *Exp. Astron.* **46**, 531, (2018), **LAGRANGE-INPHYNI**

A. Eloy, Z. Yao, R. Bachelard, W. Guerin, M. Fouché, R. Kaiser, Diffusing-wave spectroscopy of cold atoms in ballistic motion, *Phys. Rev. A.* **97**, 013810, (2018), **INPHYNI**

G.W. Fernandez Lorenzo, M. P. Santisi d'Avila, A. Deschamps, E. Bertrand, D. Mercerat, L. Foundotos, F. Courboux, Numerical and empirical seismic response simulation of buildings: the case study of Nice prefecture, *Earthquake spectra*, **34**, 169-196, (2018), **LJAD-GEOAZUR**

M. P. Santisi d'Avila, F. Lopez Caballero, Analysis of nonlinear Soil-Structure Interaction effects: 3D frame structure and 1-Directional propagation of a 3-Component seismic wave, *Computers and Structures*, **207**, 83-94, (2018), **LJAD**

G. Libourel, A. M. Nakamura, P. Beck, S. Potin, C. Ganino, S. Jacomet, R. Ogawa, S. Hasegawa, P. Michel, Hypervelocity impacts as a source of deceiving surface signatures on iron-rich asteroids, *Science Advances*, **5**, 8, 3971, (2019), **LAGRANGE-CEMEF-GEOAZUR**

C. Ganino, G. Libourel, A. M. Nakamura, P. Michel, Are hypervelocity impacts able to produce chondrule-like ejecta? *Planetary and Space Science*, **177**, 104684, (2019), **GEOAZUR-LAGRANGE**

R. Fares, [M.P. Santisi d'Avila](#), A. Deschamps, Soil-Structure Interaction analysis using a 1DT-3C : wave propagation model, *Soil Dyn. Earthq. Eng.*, **120**, 200-213, (2019), [LJAD-GEOAZUR](#)

[J.-P. Rivet](#), A. Siciak, E. S. G. de Almeida, F. Vakili, A. Domiciano de Souza, M. Fouché, O. Lai, D. Vernet, R. Kaiser, W. Guerin, Intensity interferometry of P Cygni in the H $\alpha$  emission line: towards distance calibration of LBV supergiant stars, *Monthly Notices of the Royal Astronomical Society*, **494**, 218-227, (2020), [LAGRANGE-INPHYNI](#)

G. Schifani, T. Frisch, [J. Brault](#), P. Vennéguès, S. Matta, M. Korytov, B. Damilano, J. Massies, and J.-N. Aqua, Wetting-Layer-Free AlGaN Quantum Dots for Ultraviolet Emitters, *ACS Appl. Nano Mater.*, **3**, 4054, (2020), [CRHEA-INPHYNI](#)

T. Roca Filo, [B. Marcos](#), Classical Goldstone modes in long-range interacting systems, *Phys. Rev. E* **102**, 3, 032122, (2020), [LJAD-INPHYNI](#)

J. Su, B. Suo, [P. Cassam-Chenai](#), Theoretical Study of the Anisotropy Spectra of the Valine Zwitterion and Glycerinaldehyde, *J. Phys. Chem. A*, **124**, 34, 6824-6833, (2020), [LJAD-INPHYNI](#)

I. Lior, A. [Sladen](#), S. Sambolian, Strain to ground motion conversion of distributed acoustic sensing data for earthquake magnitude and stress drop determination, *Solid Earth* **12** (6), 1421-1442, (2021), [GEOAZUR-INPHYNI](#)

I. Lior, A. [Sladen](#), C. Markou, On the Detection Capabilities of Underwater Distributed Acoustic Sensing, *Journal Geophysical Research-Solid Earth* **126**, e2020JB020925, (2021), [GEOAZUR-INPHYNI](#)

C. Sunday, [Y. Zhang](#), Y Thuillet, S. Tardivel, P. Michel, N. Murdoch, The influence of gravity on granular impacts I. A DEM code performance comparison, *ASTRONOMY & ASTROPHYSICS* **656** (A97), (2021), [LAGRANGE](#)

R-L Ballouz, K Walsh, P Sánchez, K Holsapple, [P. Michel](#), *et al.*, Modified granular impact force laws for the OSIRIS-REx touchdown on the surface of asteroid (101955) Bennu, *Monthly Notices of the Royal Astronomical Society*, **507** (4), 5087-510, (2021), [LAGRANGE](#)

D. Paulovics, C. Raufaste, T. Frisch, C. Claudet, [F. Celestini](#), Dynamics of Frost Propagation on Breath Figures, *Langmuir*, **38** (9), 2972-2978 (2022), [INPHYNI](#)

M. Gromovyi, M. El Kurdi, X. Checoury, E. Herth, F. Tabtaba-Vakili, N. Bhat. A. Courville, F. Semond, **P. Boucaud**, Low-loss GaN-on-insulator platform for integrated photonics, *OPTICS EXPRESS* **30** (12), 20737-20749, (2022) , **CRHEA**

I. Lior; E. Diego Mercerat;D. Rivet, **A. Sladen**, J-P. Ampuero, Imaging an Underwater Basin and Its Resonance Modes Using Optical Fiber Distributed Acoustic Sensing, *SEISMOLOGICAL RESEARCH LETTERS* **93** (3),1573-1584, (2022), **GEOAZUR**

## **Publications issues du programme de chercheurs invités**

**CNRS INP (2018 - 2019 - 2020 - 2021- 2022)**

### **Chercheurs invités sur des supports CDD CNRS d'un mois.**

(Les noms des invitants sont en bleu et des invités sont en rouges)

A.V. Kovalev, E. A. Viktorov, **N. Rebrova**, **A.G. Vladimirov**, **G. Huyet**, Theoretical study of mode-locked lasers with loop mirrors, *Semiconductor Lasers and Laser Dynamics VIII*, Proceedings of SPIE, **10682**, 1068226, (2018), **Laboratoire INPHYNI**

**S.S. Ray**, **D. Vincenzi**, Droplets in isotropic turbulence: deformation and breakup statistics, *J. Fluid Mech.* **852**, 313-328, (2018), **Laboratoire LJAD**

A.V. Kovalev, E.A. Viktorov, **N. Rebrova**, U. Gowda, **A.G. Vladimirov** , **G. Huyet**, Saturation effects in nonlinear loop mirror lasers: square wave operation, *Physics and Simulation of Optoelectronic devices XXVII*, Proceedings of SPIE **10912**, 109121M, (2019), **Laboratoire INPHYNI**

**A.G. Vladimirov**, A.V. Kovalev, E.A. Viktorov, **N. Rebrova**, **G. Huyet**, Dynamics of a class-A nonlinear mirror mode-locked laser, *Phys. Rev. E* **100**, 012216, (2019), **Laboratoire INPHYNI**

S. Slepneva, B. O'Shaughnessy, **A.G. Vladimirov**, S.Rica, E.A.Viktorov, **G. Huyet**, Convective Nozaki-Bekki holes in a long cavity OCT laser, *Optics Express* **27**, 16395-16404,(2019), **Laboratoire INPHYNI**

U. Giurato, [G. Krstulovic](#) & [D. Proment](#), Clustering and phase transitions in a 2D superfluid with immiscible active impurities, *J. Phys. A: Math. Theor.* **52**, 305501, (2019), [Laboratoire LAGRANGE](#)

S. Richter, H. G. Zirnstein, [J. Zúñiga-Pérez](#), E. Kruger, C. Deparis, L. Trefflich, C. Sturm, B. Rosenow, [M. Grundmann](#), R. Schmidt-Grund, Voigt exceptional points in an anisotropic ZnO-based planar microcavity: Square-root topology, polarization vortices, and circularity, *Phys. Rev. Lett.* **123**, 227401, (2019), [Laboratoire CRHEA](#)

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Z. Gao, S. Golla, R. Sawant, V. Osipov, G. Briere, S. Veziar, B. Damilano, [P. Genevet](#), [K. Dorfman](#), Revealing topological phase in Pancharatnam-Berry metasurfaces using mesoscopic electrodynamics, *Nanophotonics*, **9**, 16, 4711-4718, (2020), [Laboratoire CRHEA](#)

[D. Proment](#), [G. Krstulovic](#), Matching theory to characterize sound emission during vortex reconnection in quantum fluids, *Phys. Rev. Fluids* **5**, 10, 104701, (2020), [Laboratoire LAGRANGE](#)

[V. Grebenev](#), S.B. Medvedev, [S. Nazarenko](#), B. Semisalov, Steady states in dual-cascade wave turbulence, *J. Phys. A: Math. Theor.* **53**, 36, 365701, (2020), [Laboratoire INPHYNI](#)

[M. Grundmann](#), Universal relation for the orientation of dislocations from prismatic slip systems in hexagonal and rhombohedral strained heterostructures, *Appl. Phys. Lett.*, **116**, 8, 082104, (2020), [Laboratoire CRHEA](#)

[M. Grundmann](#), M. Lorenz, Anisotropic strain relaxation through prismatic and basal slip in  $\alpha$ -(Al, Ga)<sub>2</sub>O<sub>3</sub> on R-plane Al<sub>2</sub>O<sub>3</sub>, *APL Materials*, **8**, 2, 021108, (2020), [Laboratoire CRHEA](#)

A. Vilhois, [D. Proment](#), [G. Krstulovic](#), Irreversible dynamics of vortex reconnections in quantum fluids, *Phys. Rev. Lett.* **125**, 164501, (2020), [Laboratoire LAGRANGE](#)

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B.V. Semisalov, [V.N. Grebenev](#), [S.V. Nazarenko](#)  
Numerical analysis of a self-similar turbulent flow in Bose-Einstein condensates, *Communication in non-linear science and numerical simulation* **102**, 105903 (2021), [Laboratoire INPHYNI](#)

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S. Thalabard, S. Medvedev, **S. Grebenev**, **S. Nazarenko**, Inverse cascade anomalies in fourth-order Leith models  
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL **55** (1), 0157027 (2022 ), **Laboratoire INPHYNI**



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