



Publication

Publications sur journaux internationaux à comité de lecture

2020

- Palladino, V. Nardelli, L.G. Atzeni, N. Cantatore, M. Cataldo, F. Croccolo, N. Estrada and A. Tombolini, *Modelling the spread of Covid19 in Italy using a revised version of the SIR model*, submitted (2020), see [ArXiv](#).
- Castellini, M. Carpineti, F. Croccolo, and A. Vailati, *Inclined convection in a layer of liquid water with poorly conducting boundaries*, *Phys. Rev. Research* **2**, 033481 (2020), see [website](#).
- Croccolo and H.E. Roman, *Spreading of infections on random graphs: A percolation-type model for COVID-19*, *Chaos, Solitons and Fractals* **139**, 110077 (2020), see [website](#) or [ArXiv](#).
- Vailati, P. Baaske, H. Bataller, S. Bolis, M. Braibanti, M. Carpineti, R. Cerbino, F. Croccolo, J.-L. Dewandel, A. Donev, L. García-Fernández, F. Giavazzi, R. Haslinger, S. Hens, M. Knauer, W. Köhler, E. Kufner, J.M. Ortiz de Zárate, J. Peeters, C.J. Schwarz, I. Silkina, S. Xu, D. Zapf, *Giant Fluctuations induced by thermal diffusion in complex fluids*, *Microgravity Sci. and Technol.* **32**, 873 (2020), see [website](#).
- Mialdun, M. Braibanti, M.M. Bou-Ali, F. Croccolo, A. Errarte, J.M. Ezquerro, J.J. Fernández, L. García-Fernández, Q. Galand, Yu. Gaponenko, J. Gavaldá, W. Köhler, T. Lyubimova, J.M. Ortiz de Zárate, J. Rodríguez, X. Ruiz, I.I. Ryzhkov, M. Schraml, V. Shevtsova, S. VanVaerenbergh, V. Yasnou, H. Bataller, *Data quality assessment of Diffusion Coefficient Measurements in ternary mixtures 4 (DCMIX) experiment*, *Acta Astronautica* **176**, 204 (2020), see [website](#).
- M. Ortiz de Zárate, L. García-Fernández, H. Bataller, and F. Croccolo, *Non-equilibrium fluctuations in a ternary mixture subjected to a temperature gradient*, *J. Stat. Phys.* **181**, 1 (2020). <https://doi.org/10.1007/s10955-020-02554-8>

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- L. García-Fernández, P. Fruton, H. Bataller, J.M. Ortiz de Zárate, and F. Croccolo, *Coupled nonequilibrium fluctuations in a polymeric ternary mixture*, *Eur. Phys. J. E* **42**, 124 (2019).
- D. Brogioli, F. Croccolo, and A. Vailati, *Cylindrical flowing-junction cell for investigating miscible fluids*, *Rev. Sci. Instrum.* **90**, 085109 (2019).
- A. Mialdun, H. Bataller, M.M. Bou-Ali, M. Braibanti, F. Croccolo, A. Errarte, J.M. Ezquerro, J.J. Fernández, Y. Gaponenko, L. García-Fernández, J. Rodríguez, and V. Shevtsova, *Preliminary analysis of Diffusion Coefficient Measurements in ternary mixtures 4 (DCMIX4) experiment onboard the International Space Station*, *Eur. Phys. J. E* **42**, 87 (2019).
- M. Braibanti, P.-A. Artola, P. Baaske, H. Bataller, J.-P. Bazile, M.M. Bou-Ali, D.S. Cannell, M. Carpineti, R. Cerbino, F. Croccolo, J. Diaz, A. Donev, A. Errarte, J.M. Ezquerro, A. Frutos-Pastor, Q. Galand, G. Galliero, Y. Gaponenko, L. García-Fernández, J. Gavaldá, F. Giavazzi, M. Giglio, C. Giraudet, H. Hoang, E. Kufner, W. Köhler, E. Lapeira, A. Laverón-Simavilla, J.-C. Legros, I. Lizarraga, T. Lyubimova, S. Mazzoni, N. Melville, A. Mialdun, O. Minster, F. Montel, F.J. Molster, J.M. Ortiz de Zárate, J. Rodríguez, B. Rousseau, X. Ruiz, I.I. Ryzhkov, M. Schraml, V. Shevtsova, C.J. Takacs, T. Triller, S. VanVaerenbergh, A. Vailati, A. Verga, R. Vermorel, V. Vesovic, V. Yasnou, S. Xu, D. Zapf, K. Zhang, *European Space Agency experiments on thermodiffusion of fluid mixtures in space*, *Eur. Phys. J. E* **42**, 86 (2019).
- D. Brogioli, F. Croccolo, and A. Vailati, *Asymmetric time cross-correlation of non-equilibrium concentration fluctuations in a ternary liquid mixture*, *Phys. Rev. E* **99**, 053115 (2019).
- M. Carpineti, M. Sabato, F. Croccolo and A. Vailati, *Kinetics of growth of non-equilibrium fluctuations during thermodiffusion in a polymer solution*, *Eur. Phys. J. E* **42**, 25 (2019).
- F. Croccolo, L. García-Fernández, H. Bataller, A. Vailati and J.M. Ortiz de Zárate, *Propagating modes in a binary liquid mixture under thermal stress*, *Phys. Rev. E* **99**, 012602 (2019).



2018

- F. Croccolo, S. Castellini, F. Scheffold and A. Vailati, Nonequilibrium solid-solid phase transition in a lattice of liquid jets, *Phys. Rev. E* 98, 063104 (2018).

Participation à congrès internationaux

1. F. Croccolo, H. Bataller, M.M. Bou-Ali, M. Braibanti, A. Errarte, J.M. Ezquerro, J.J. Fernández, Y. Gaponenko, L. García-Fernández, A. Mialdun, J. Rodríguez, V. Shevtsova, Preliminary analysis of Diffusion Coefficient Measurements in ternary mixtures 4 (DCMIX4) experiment on-board the International Space Station, présentation orale @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).
2. A.T. Ndjaka, M. Burtin, P. Fruton, L. García-Fernández, F. Croccolo, H. Bataller, Diffusion and Soret coefficients measurement of the triethylene glycol and water binary mixture by dynamic Shadowgraphy, présentation orale @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).
3. A. Vailati, P. Baaske, H. Bataller, M. Braibanti, M. Carpineti, R. Cerbino, F. Croccolo, A. Donev, L. García Fernández, F. Giavazzi, W. Köhler, J.M. Ortiz de Zárate, S. Xu, D. Zapf, Giant Fluctuations induced by thermal diffusion in complex liquids, présentation orale @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).
4. M. Carpineti, M. Sabato, F. Croccolo, A. Vailati, Onset of Non-Equilibrium Fluctuations induced by thermophoretic diffusion, présentation orale @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).
5. L. García-Fernández, P. Fruton, H. Bataller, J.M. Ortiz de Zárate, F. Croccolo, Coupled nonequilibrium fluctuations in a polymeric ternary mixture involved in the GIANT FLUCTUATIONS space project, présentation orale @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).
6. P. Fruton, A.T. Ndjaka, L. García-Fernández, H. Bataller, F. Croccolo, Shadowgraph investigation of free diffusion of glycerol and water under micro gravity conditions using a cylindrical Flowing Junction cell, présentation poster @ 26th ELGRA Biennial symposium, 24-27 septembre 2019, Granada (ES).