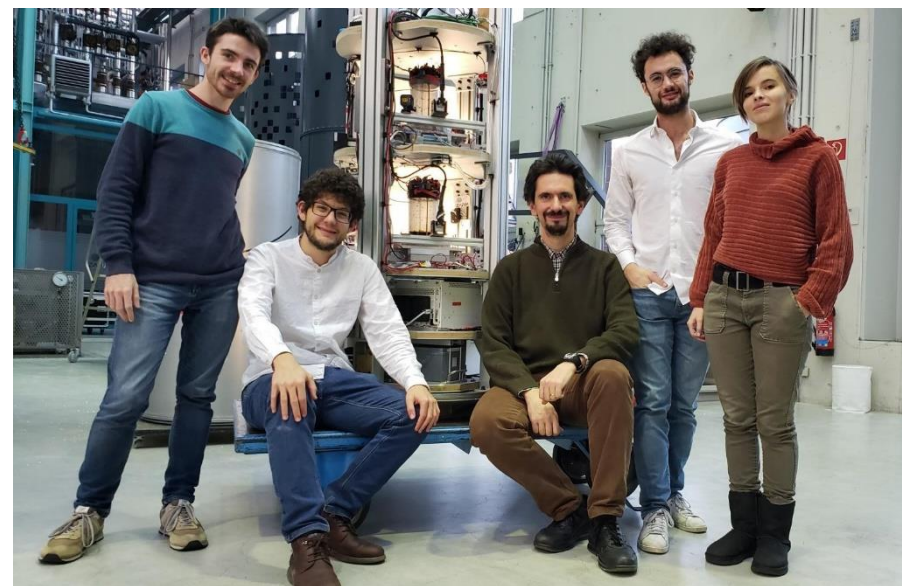




StELIUM (Sloshing of magnEticLIqUids in Microgravity) UNOOSA DropTES Programme 2019, 6th Cycle

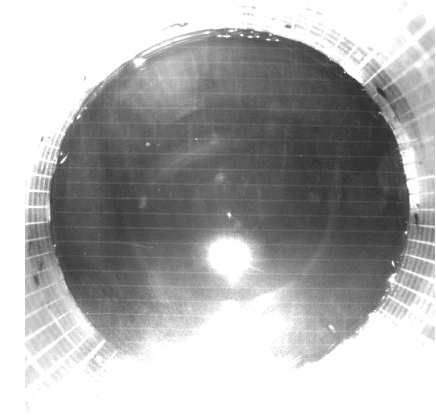
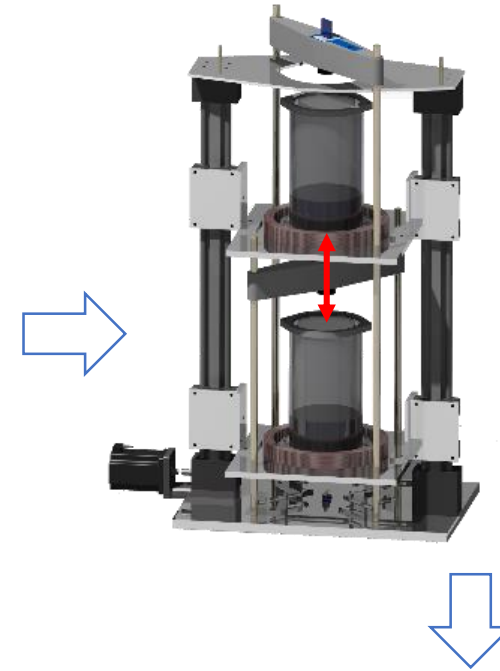
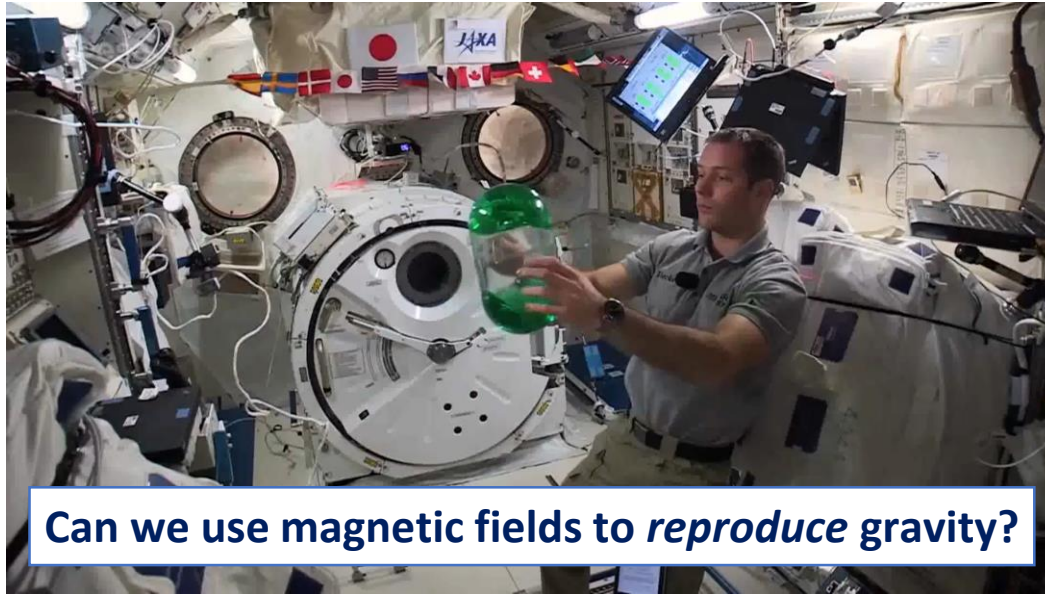


Álvaro Romero-Calvo, Antonio J. García-Salcedo, Francesco Garrone, Inés Rivoalen, Filippo Maggi

Supported by:



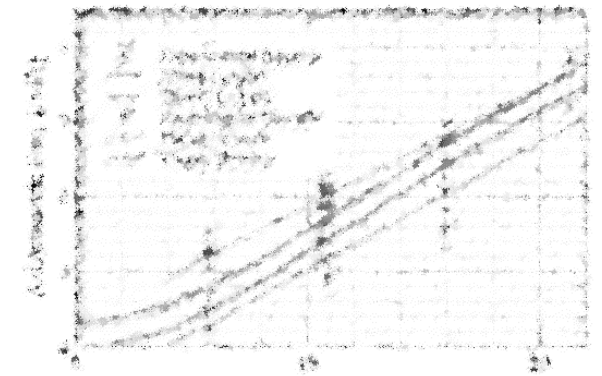
1. Motivation



2017



2019



Romero-Calvo et al., Axisymmetric ferrofluid oscillations in a cylindrical tank in microgravity, *Microgravity Science & Technology*, under review

Discrepancy in frequency-current slope
Why is this happening?

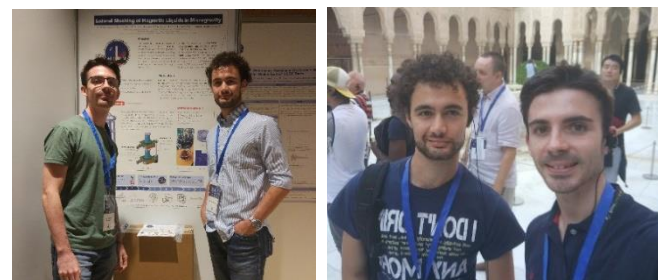
Need for further experiments

2. An international effort



Great public outreach!

26th ELGRA Symposium and General Assembly - Spain



70th IAC, UNOOSA Workshop, Washington DC



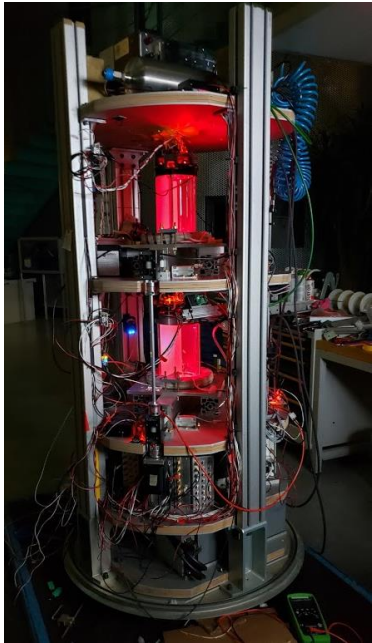
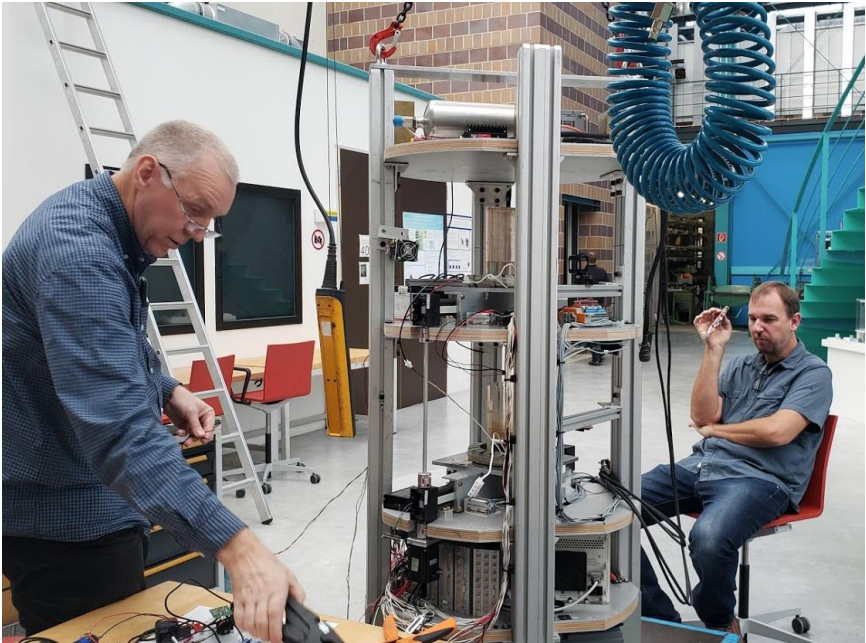
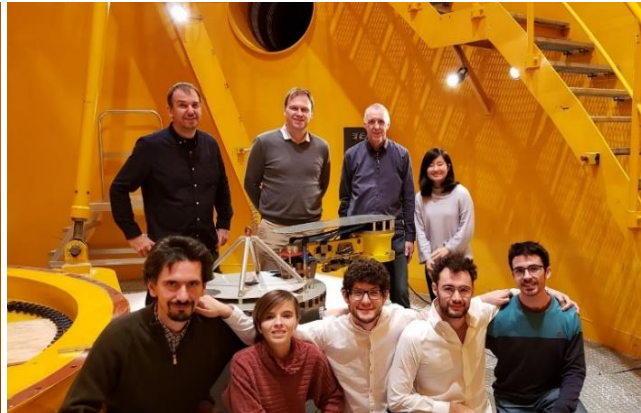
3. ZARM's drop tower campaign

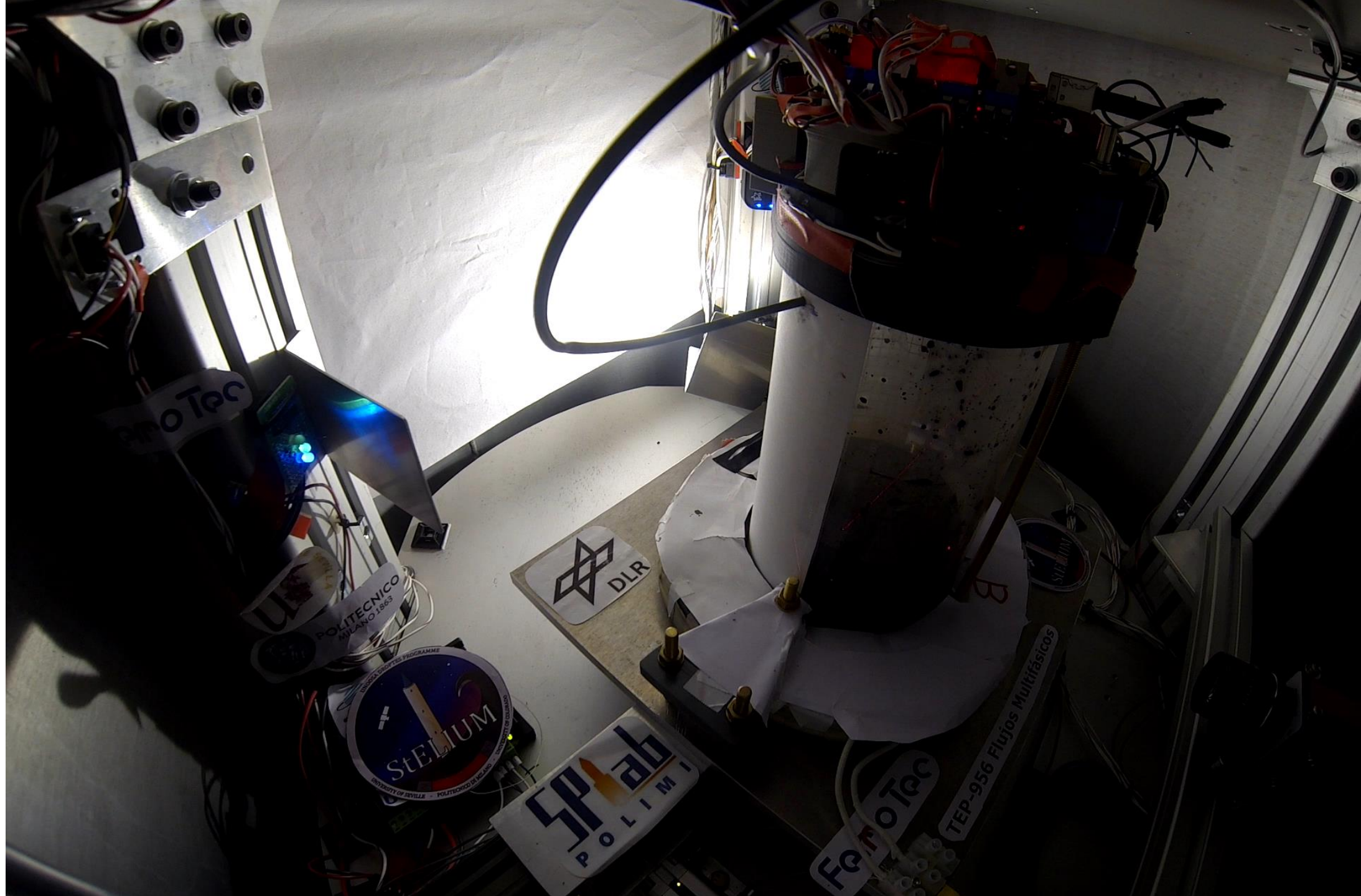
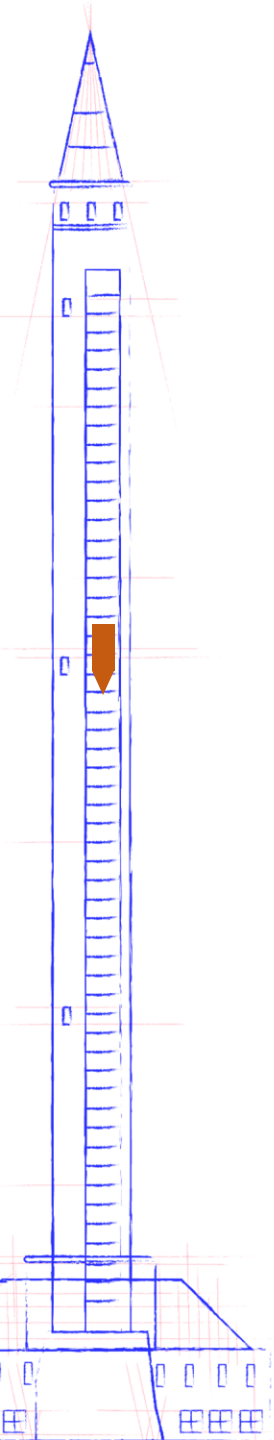


POLITECNICO MILANO 1863

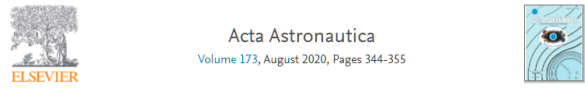
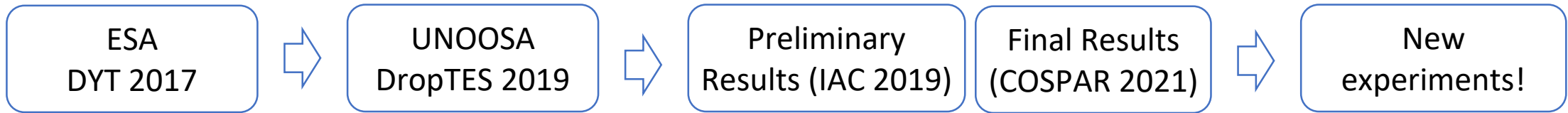


FerroTec





4. The future of UNOOSA DropTES 2019 - StELIUM



StELIUM: A student experiment to investigate the sloshing of magnetic liquids in microgravity

Á. Romero-Calvo^{a,b}, A.J. García-Salcedo^b, F. Garrone^b, I. Rivoalen^b, G. Cano-Gómez^c, E. Castro-Hernández^d, M.Á. Herrada Gutiérrez^d, F. Maggi^b

RESEARCH PAPERS

Free and Forced Oscillations of Magnetic Liquids Under Low-Gravity Conditions

Álvaro Romero-Calvo, Gabriel Cano Gómez, Elena Castro-Hernández, Filippo Maggi

Check for updates

Author and Article Information

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Published Online: December 19, 2019 Article history

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IAC-19.A2.2.7.x52131

LATERAL SLOSHING OF MAGNETIC LIQUIDS IN MICROGRAVITY

Á. Romero-Calvo^{1*}, A. J. García-Salcedo¹, I. Rivoalen¹, F. Garrone¹, G. Cano Gómez², E. Castro-Hernández³, M. Á. Herrada Gutiérrez³, F. Maggi¹,

Free surface reconstruction of opaque liquids in microgravity. Part 1: design and on-ground testing

Á. Romero-Calvo^{a,b*}, A. J. García-Salcedo^b, F. Garrone^b, I. Rivoalen^b, G. Cano-Gómez^c, E. Castro-Hernández^d and F. Maggi^b

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ARTICLE INFO

ABSTRACT

Free surface reconstruction of opaque liquids in microgravity. Part 2: results of drop tower campaign

Á. Romero-Calvo^{a,b*}, F. Garrone^b, A. J. García-Salcedo^b, I. Rivoalen^b, G. Cano-Gómez^c, E. Castro-Hernández^d and F. Maggi^b

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ARTICLE INFO

ABSTRACT

Materials Sciences in Space (G)
 Drop Tower Days (G0.2)
 Consider for oral presentation.

**Final results!!
 COSPAR 2021**

AXISYMMETRIC AND LATERAL FREE SURFACE OSCILLATIONS OF FERROFLUIDS IN MICROGRAVITY

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