



Workshop on « Quantum gravimetry in space and on ground »

26th and 27th of May 2021

2:00-5:00 PM CET

This (virtual) meeting aims at covering a broad scope of quantum gravity sensing, from the development of the sensors and their characterization, to a large panel of present and future applications. We expect it to bring together instrument scientists from the quantum physics community and users from the geoscience community.

The workshop is organized by the Working group on *Quantum gravimetry in space and on ground* of the IAG Project – *Novel Sensors and Quantum Technology for Geodesy* (QuGe, <https://quge.iag-aig.org/>). The goal of this WG, created in 2020, is to elaborate the major benefit and most promising applications of atom interferometry for gravimetry and inertial sensing in space and on the ground.

Program

Wednesday, the 26th of May

2:00 – 2:35	Bastian Leykauf	HU Berlin	Precision gravimetry with an atom interferometer
2:35 – 3:10	Jean Paul Montagner	IPGP	Prompt Earthquake Gravity Anomalies - Speed-of-light Seismology
3:10 – 3:45	Thomas Lévêque	CNES	Development of quantum sensors for space geodesy
3:45 – 4:20	Roland Pail	TUM	Impact of new measurement technologies for the monitoring of mass transport processes in the Earth system
4:20 – 4:55	Glyn Williams-Jones	SFU	Volcano gravimetry – insights from past successes and future opportunities

Thursday, the 27th of May

2:00 – 2:35	Yannick Bidel	ONERA	Airborne and marine quantum gravimetry
2:35 – 3:10	Andreas Güntner	GFZ	Applications of terrestrial gravimetry in hydrology
3:10 – 3:45	Qiang Lin	Zhejiang U. of Technology	Absolute gravity measurement for field applications based on quantum gravimeter
3:45 – 4:20	Alain Dassargues	ULiege	Land subsidence due to induced water pressure changes in aquifers and confining layers
4:20 – 4:55	Frédéric Doms	European Commission	Quantum Space Gravimetry at European Commission

Registration

To register, please fill the form before the 23th of May at:

https://docs.google.com/forms/d/e/1FAIpQLSeBc1IGf67zNI_aZ54EQIht5m6rJRXUE9qZG-KuOXL9ZR3Q/viewform?usp=sf_link

A link will be sent in due time to registered participants