

Second European Physical Society Conference on Gravitation: measuring gravity



Contribution ID: 9

Type: **talk**

The Archimedes Experiment

Tuesday, 6 July 2021 13:30 (10 minutes)

Saverio Avino, Enrico Calloni, Sergio Caprara, Martina De Laurentis, Rosario De Rosa, Tristano Di Girolamo, Luciano Errico, Gianluca Gagliardi, Marco Grilli, Valentina Mangano, Maria Antonietta Marsella, Luca Naticchioni, Giovanni Piero Pepe, Maurizio Perciballi, Gabriel Pillant, Paola Puppo, Piero Rapagnani, Fulvio Ricci, Luigi Rosa, Carlo Rovelli, Paolo Ruggi, Naurang L. Saini, Daniela Stornaiuolo, Francesco Tafuri and Arturo Tagliacozzo

The Archimedes project aims to measure the interaction between the electromagnetic vacuum fluctuations and the gravitational field. The experiment can shed light on some question marks still open in cosmology like the dark energy nature.

A very sensitive balance has been constructed to weight the vacuum e.m. field energy induced in a multi-Casimir cavity system by temperature modulation techniques. The system is a high TC superconductor like the YBCo material having multilayered structure useful for this purpose.

This experiment is being installed in the SARGRAV laboratory placed Sardinia a very low seismic noise site, suitable for null force experiments.

In this talk the status of the experiment will be reported.

Primary author: PUPPO, Paola (ROMA1)

Presenter: PUPPO, Paola (ROMA1)

Session Classification: Recorded Talks: Fundamental Test and Equivalence Principle