Contribution ID: **52** Type: **talk**

Double-arm suspended interferometric balance at Sos Enattos. Preliminary sensitivity

In Sos Enattos, the installation of the first double-arm suspended balance with interferometric reading has been completed. The system consists of a reference arm with a high moment of inertia and a measurement arm, with low moment of inertia, suspending at one end a lead sample and at the other end an aluminum sample. The aluminum sample is in turn. immersed in a thermal chamber to allow for temperature modulation if necessary. The system is under vacuum and properly locked to assure interferometric reading.
The control system and the balance preliminary and excellent sensitivity are shown and discussed in light of the low seismic noise at the Sos Enattos site, Sardinia. Applications in tiltmeters are also presented.

Author: CALLONI, Enrico

Co-authors: CONTU, Andrea (INFN Cagliari); Dr ERBANNI, Angelo (EGO); ALLOCCA, Annalisa; PASQUALETTI, Antonio; Prof. STORNAIUOLO, Daniela (Università di Napoli Federico II); ROZZA, Davide (University of Milano-Bicocca & INFN-MIB); D'URSO, Domenico; Prof. RICCI, Fulvio (University of Rome Sapienza); D'ONOFRIO, Luca; FRANCESCON, Luca; NATICCHIONI, Luca; TROZZO, Lucia (INFN, sez. Napoli); ERRICO, Luciano; Prof. ROSA, Luigi (Università di Napoli Federico II); Dr ESPOSITO, Marina (Università di Napoli Federico II); CARPINELLI, Massimo; TUVERI, Matteo (Università di Cagliari e INFN Cagliari); PUPPO, Paola; RUGGI, Paolo; Prof. RAPAGNANI, Piero (La Sapienza University & INFN Sezione di Roma); DE ROSA, Rosario; MANGANO, Valentina; SEQUINO, Valeria; MARSELLA, maria (Sapienza University, Rome); Dr AVINO, saverio (CNR-INO); Prof. SIPALA, valeria (Università di Sassari)

Presenter: CALLONI, Enrico

Session Classification: Instrument Science (ISB)

Track Classification: ISB: Active Noise Mitigation