Contribution ID: **61** Type: **Oral**

GINGER Status report

Thursday, 20 June 2024 10:10 (20 minutes)

Angela D.V. Di Virgilio for the GINGER collaboration

Measurements of the Earth's rotation speed made with laser gyroscopes, otherwise known as ring lasers, certainly important for the Earth sciences, are also relevant for fundamental physics tests, as they contain terms of general relativity, such as de Sitter and Lense Thirring and provide unique data to investigate Lorentz's violations. Ring lasers ensure long-term continuous operation with record sensitivity. The limit to be reached for studying the fundamental physics of 1 part in 109 of the Earth's rotation speed has already been demonstrated by existing prototypes.
The GINGER project is based on ring lasers, its status will be described.

Primary author: DI VIRGILIO, Angela Dora Vittoria (Istituto Nazionale di Fisica Nucleare)

Presenter: DI VIRGILIO, Angela Dora Vittoria (Istituto Nazionale di Fisica Nucleare)

Session Classification: Innovative Detectors and Data Handling Techniques

Track Classification: Innovative detectors and data handling techniques