

Advancements in geodetic observations with large ring laser gyroscopes

Friday, 27 October 2023 12:00 (30 minutes)

A multitude of different globally distributed and independent mass transport phenomena lead to non-predictable fluctuations in the Earth's rotation rate Ω_e . Large Sagnac interferometers in the form of ring lasers enable the instantaneous observation of variations in Ω_e at a level of a few ppb. Here, the benefit of this technique, as well as recent advancements and future possibilities are discussed.

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Session Classification: Gravity in the weak field