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## Sagnac gyroscopes and fundamental physics

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Sagnac Gyroscopes attached to the Earth surface are sensitive to gravito-magnetism, and in principle the confrontation with independent measurements of the Earth rotation rate gives the possibility to measure the Lense Thirring effect without the necessity to map the gravitational field, independently from the space measurements. This is feasible or not depending on how ideal is the Sagnac gyroscopes we have at our disposal. Moreover the same kind of apparatus built on small scale are in principle ideal for the many kind of applications necessary to develop inertial platforms. Ring laser gyros are at present the most sensitive Sagnac gyros, the data of the prototype GINGERINO are used to discuss the feasibility of large scale apparatus and short size apparatus.

### Summary

Status of large area Sagnac gyroscopes

**Primary author:** DI VIRGILIO, Angela Dora Vittoria (PI)

**Presenter:** DI VIRGILIO, Angela Dora Vittoria (PI)

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