

## 12th Iberian Gravitational Waves Meeting



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### **Active monitoring of stray light at Advanced Virgo: new instrumented baffles.**

*Monday 6 June 2022 10:25 (20 minutes)*

As part of the phase I upgrade of the Advanced Virgo interferometer, a new instrumented baffle was installed last year at EGO. This novel and innovative control device surrounds the suspended end mirror of the Virgo's input mode cleaner cavity and is equipped with photosensors in order to monitor the stray light inside the experiment, a persistent source of noise at interferometers. It serves as a demonstrator of the technology designed to instrument the baffles in the main arms as part of the phase II upgrade in the near future. We present an update on the status of the new detector and its integration into the regular Virgo operations in preparation for the new Observation Run O4, along with results on the measured scattered light distribution inside the cavity. The sensitivity of the baffle is discussed and the data is compared to scattered light simulations.

#### **Which topic best fits your talk?**

GW Experimental Results

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