

# Second European Physical Society Conference on Gravitation: measuring gravity



Contribution ID: 72

Type: **talk**

## Instrumented baffles for AdV+

*Monday, 5 July 2021 14:22 (1 minute)*

As part of the upgrade program, Virgo has just installed a new baffle equipped with photosensors that surrounds the end-mirror of the input mode-cleaner. This culminates more than two years of work at IFAE-Barcelona for the design and construction of a novel and innovative device to control and monitor stray light inside the experiment, a persistent source of noise in interferometers. It will serve as a demonstrator of the technology for its future implementation in the main arms of the interferometer, surrounding the test masses. The new baffle will provide valuable data for understanding the cavity and calibrating simulations that describe the propagation of light within the interferometer. The instrumented baffle is now entering a long period of commissioning and integration into Virgo's regular operations, in time to become an integral part of the new O4 observation run, currently scheduled for summer 2022. In this talk we describe the technology and we present the first results of its performance within the experiment.

**Primary author:** MIR, Lluïsa-Maria (IFAE)

**Presenter:** MIR, Lluïsa-Maria (IFAE)

**Session Classification:** Recorded Talks: Experimental Challenges in Gravitational Wave Detection