

Abstract Submitted
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Tiltmeter Interferometer Studies FABIAN PENA-ARELLANO, EMANUELE SOBACCHI, RICCARDO DESALVO, MORGAN SHANER¹, Caltech, LIGO TEAM² — The design and characterization of a Michelson interferometer for the readout of the tiltmeter is reported. The maximum angular displacement of the tiltmeter that the interferometer can tolerate is calculated. The noise produced by the transimpedance amplifier of the photodiode is calculated and compared with experimental measurements. The contributions of ground vibrations and laser intensity noise are experimentally identified. A feedback system for locking the interference pattern at a certain intensity was implemented.

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