

Abstract Submitted  
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**The LISA Telescope Test Structure Alignment Analysis for Dimensional Stability Testing**<sup>1</sup> ADA UMINSKA, JOSE SANJUAN, SOHAM KULKARNI, JOSEPH GLEASON, PAUL FULDA, GUIDO MUELLER, University of Florida — The LISA telescope is a critical part of the LISA instrument and has to meet pm/ $\sqrt{\text{Hz}}$  length stability requirements within the LISA band and m length stability over the ten-year lifetime of the mission. Our group is developing ground support equipment (GSE) to verify that the telescope meets these requirements. The GSE consists of a telescope test structure (TTS) which allows to integrate the telescope into an optical cavity. In this talk we report on the optical design (length, mirror radii of curvature) and the resulting internal and external alignment tolerances and requirements as well as the robustness against dynamic (in-band) misalignments.

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