

Abstract Submitted
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**Laser Communications for LISA and the University of Florida
LISA Interferometry Simulator** DYLAN SWEENEY, JUSTIN COHEN, SIMON BARKE, SHAWN MITRYK, VINZENZ WAND, GUIDO MUELLER — The LISA mission uses laser interferometry to measure fluctuations in the path length between the spacecraft caused by gravitational waves. For LISA to be successful the spacecraft must be able to communicate with each other in order to transfer clock signals, measure the range between the spacecraft, and to share recorded data. All of these functions will be accomplished using the laser links between the spacecraft. The University of Florida LISA Interferometry Simulator (UFLIS) is capable of simulating LISA interferometry with realistic delay times between the spacecraft by utilizing an electronic phase delay technique. We plan to upgrade the UFIS to include the laser communication systems, and present the work towards this goal that has already been accomplished.

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