

39th COSPAR Scientific Assembly 2012

Fundamental Physics in Space (H)

Study of Strong Gravity Using Gravitational and Electromagnetic Waves (H0.2)

Consider as poster only.

SPACE-BASED GRAVITATIONAL-WAVE OBSERVATORY (SGO) MISSION CONCEPT STUDY

Jeffrey Livas, jeffrey.livas-1@nasa.gov

NASA Goddard Space Flight Center, Greenbelt, Maryland, United States

Presenting author: **Paul McNamara**, paul.mcnamara@esa.int

ESA-ESTEC/RSSD, Noordwijk, Netherlands

Paul McNamara, paul.mcnamara@esa.int

ESA-ESTEC/RSSD, Noordwijk, Netherlands

Oliver Jennrich, oliver.jennrich@esa.int

ESA/ESTEC, Noordwijk, Netherlands

The LISA Mission Concept has been under study for over two decades as a space-based gravitational-wave detector capable of observing astrophysical sources in the 0.0001 to 1 Hz band. The concept has consistently received strong recommendations from various review panels based on the expected science, most recently from the US Astro2010 Decadal Review. Budget constraints have led both the US and European Space agencies to search for lower cost options. We report results from the US effort to explore the tradeoffs between mission cost and science return.