

MAS15-2015-000156

E

Abstract for an Invited Paper  
for the MAS15 Meeting of  
the American Physical Society

### **Toward a Space-based Gravitational Wave Observatory**

ROBIN STEBBINS, NASA Goddard Space Flight Center

NASA and ESA have explored a gravitational wave mission since 1993. In November 2013, the European Space Agency (ESA) selected the science theme, the “Gravitational Universe,” for its third large mission opportunity, known as ‘L3,’ under its Cosmic Vision Programme. The planned launch date is 2034. NASA is seeking a role as an international partner in L3. NASA is supporting: (1) US participation in early mission studies, (2) US technology development, (3) pre-decadal preparations, (4) ESA’s LISA Pathfinder mission and (5) the ST7 Disturbance Reduction System project. This talk summarizes NASA’s preparations for a future gravitational-wave mission.