

Abstract Submitted  
for the APR09 Meeting of  
The American Physical Society

**The status, achievements, and prospects of the Mock LISA Data Challenges** MICHELE VALLISNERI, Jet Propulsion Laboratory/Caltech, MOCK LISA DATA CHALLENGE TASKFORCE TEAM — For the last three years, many gravitational-wave analysts around the world have supported the Mock LISA Data Challenges (MLDCs), a program to demonstrate and encourage the development of LISA data-analysis capabilities, tools and techniques. In the MLDCs, a task force chartered by the LIST periodically issues challenge data sets containing GW signals from sources of undisclosed parameters, embedded in synthetic LISA noise. Challenge participants have a few months to analyze the data and submit detection candidates, which are then compared with the sources originally injected in the data sets. In this talk, I review the milestones achieved in the first three MLDCs, and I describe Challenge 3 (for which, at the time of this meeting, we will have just received participant entries). I discuss how future challenge problems may broaden in scope from the technical analysis of LISA data to the investigation of LISA's science objectives, and to a systematic characterization of the instrument effects that will affect data analysis.

Michele Vallisneri  
Jet Propulsion Laboratory/Caltech

Date submitted: 13 Jan 2009

Electronic form version 1.4