

**UPDATE ON THE GRAIL TWIN SPACECRAFT MISSION TO THE MOON.** M. T. Zuber<sup>1</sup>, D. E. Smith<sup>1</sup>, M. Watkins<sup>2</sup>, and S. Asmar<sup>2</sup>, <sup>1</sup>MIT Cambridge, MA 02139 [zuber@mit.edu](mailto:zuber@mit.edu), [smithde@mit.edu](mailto:smithde@mit.edu), <sup>2</sup>JPL Pasadena, CA 91109.

The twin GRAIL spacecraft were successfully launched to the Moon at 1308 GMT on Sept 10, 2011 in a trajectory that will place the two spacecraft in lunar orbit on December 31 this year and on Jan 1, 2012. After approximately 2 months of refining the orbits of the two spacecraft the science phase will begin with the spacecraft approximately 60 km apart in a near circular polar orbit at 55 km average altitude above the lunar surface. For 82 days the spacecraft will map the lunar gravity field in unprecedented detail.

The status of the mission, the twin spacecraft, and the anticipated scientific return will be presented.