

Plenary Talk PV VIII Thu 9:45 Audimax
Geophysics in Elysium Planitia - First Year Results from the InSight Mars Mission — ●MATTHIAS GROTT¹, BRUCE BANERDT², SUZANNE SMREKAR², TILMAN SPOHN¹, PHILIPPE LOGNONNE³, CHRISTOPHER RUSSEL⁴, CATHERINE JOHNSON⁵, DON BANFIELD⁶, JUSTIN MAKI², MATT GOLOMBEK², DOMENIKO GIRADINI⁷, WILLIAM PIKE⁸, ANNA MITTELHOLZ⁵, YANAN YU⁴, and ATTILIO RIVOLDINI⁹
— ¹German Aerospace Center, Berlin, Germany — ²Jet Propulsion Laboratory, Pasadena, USA — ³IPGP, Paris, France — ⁴UCLA, Los Angeles, USA — ⁵University of British Columbia, Canada — ⁶Cornell University, Ithaca, USA — ⁷ETHZ, Zürich, Switzerland — ⁸Imperial College, London, UK — ⁹Royal Observatory, Brussels, Belgium
On November 26, 2018, NASA’s InSight mission landed in Elysium

Planitia, Mars, and installed the first geophysical station on the planet. InSight’s primary payload consists of a seismometer, a heat flow probe, and a radio tracking experiment to determine the planet’s rotational state. In addition, the lander is equipped with a robotic arm that has been used to deploy the seismometer and heat flow probe, two cameras, a radiometer, and an atmospheric and magnetic field package. InSight’s primary objectives are to determine the interior structure, composition, and thermal state of Mars, as well as constrain present-day seismicity and impact cratering rates. While the heat flow probe was able to emplace sensors to a depth of 0.37 m only, the seismometer has been successfully installed. Here we will provide a mission overview and report on results obtained during the first year of operations on Mars.