

**Plenary Talk**      PV XIII   Thu 9:45   H-Aula/HS I/HS X  
**Geophysics in Elysium Planitia - First Year Results from the InSight Mars Mission** — ●MATTHIAS GROTT<sup>1</sup>, BRUCE BANERDT<sup>2</sup>, SUZANNE SMREKAR<sup>2</sup>, TILMAN SPOHN<sup>1</sup>, PHILIPPE LOGNONNE<sup>3</sup>, CHRISTOPHER RUSSEL<sup>4</sup>, CATHERINE JOHNSON<sup>5</sup>, DON BANFIELD<sup>6</sup>, JUSTIN MAKI<sup>2</sup>, MATT GOLOMBEK<sup>2</sup>, DOMENIKO GIRADINI<sup>7</sup>, WILLIAM PIKE<sup>8</sup>, ANNA MITTELHOLZ<sup>5</sup>, YANAN YU<sup>4</sup>, and ATTILIO RIVOLDINI<sup>9</sup>  
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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 faces difficulties in emplacing sensors to the target depth of 5 m, 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.