

New Horizons mission: Pluto and Beyond

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On 14 July 2015 NASA's New Horizons mission completed a close approach to the Pluto system and will flyby the Kuiper Belt object 2014 MU69 on 1 January 2019 as part of the Kuiper Belt Extended Mission. A wealth of data collected by several instruments on board of the spacecraft have shed light on the surface composition, geology, and atmosphere of Pluto and its satellites at a distance of 12,000 km from the surface of the dwarf planet (Stern et al., 2015). I will describe the detailed, up-close snapshot that New Horizons has returned for the Pluto system and put it in the context of ground-based data collected prior, during, and post the New Horizons mission. I will outline our current understanding of the suite of processes responsible for shaping the complex cryogenic world of Pluto. Open questions that still require further investigation and the future perspectives of the New Horizons mission will be discussed. The recent and future discoveries of the prime and extended New Horizons mission will be presented in the context of the solar system and exoplanet science.
