Global Maps of Surface and Topography for Pluto and Charon

During the New Horizons spacecraft’s flyby of Pluto in July 2015, cameras captured thousands of images, which have been used to create a color-coded topographical map covering ~40% of Pluto’s surface (left) and ~40% of Charon’s surface (below).

On Pluto, Sputnik Planitia is the basin 3.5 km below mean surface level, near the map’s center (blue oval) and filled with N₂ ice.

The tallest features on Pluto are among the highest known on any icy object, with maximum heights of about 6 km (3.7 miles) above their base, comparable to Denali in Alaska and Kilimanjaro in Kenya, and have slopes steeper than 40°.

Charon has the greatest range relief of any icy moon other than Saturn’s moon Iapetus, and troughs near its north pole are 14 km (8.7 mi) deep.

Schenk et al. (2018) *Icarus*