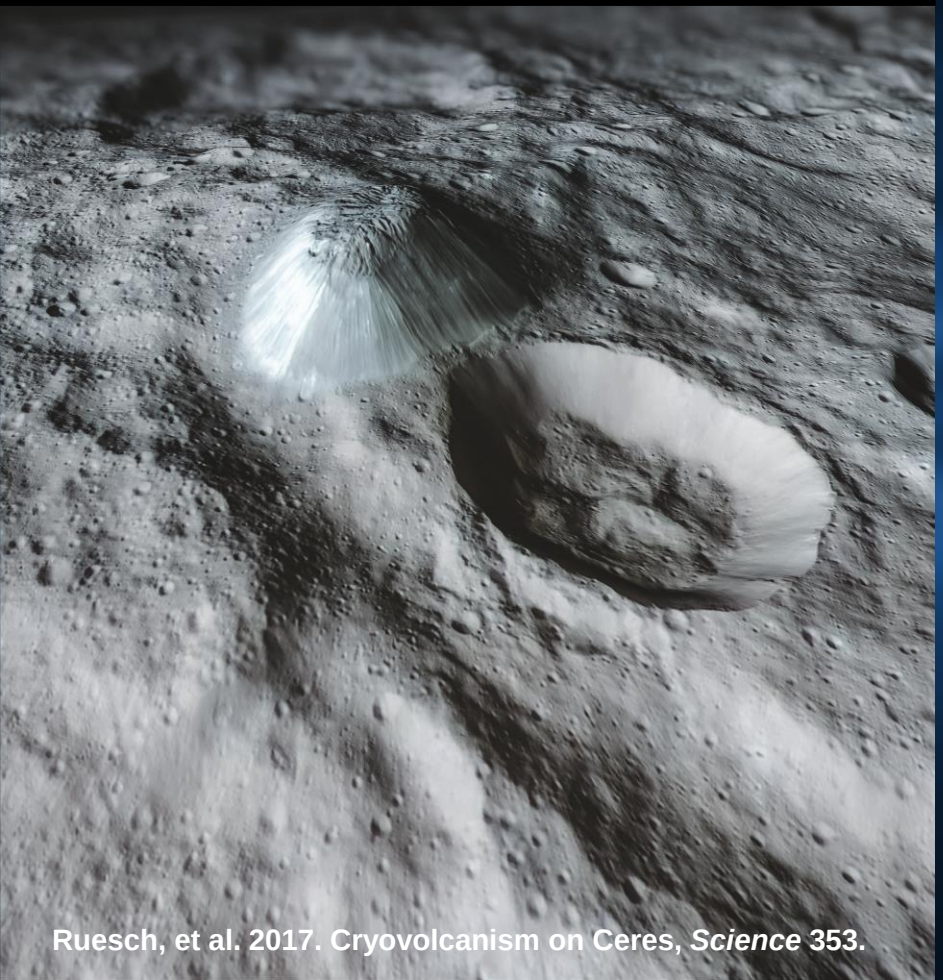
High-Resolution Gravity Field Sheds Light on Ceres' Enigmatic Mountain

Ahuna Mons is a 4-km mountain located near the equator of Ceres. It is believed to have formed by the extrusion of brines (salty liquid) onto the surface via a mechanism similar to cryovolcanism. The gravity data delivered by the Dawn team can help test this hypothesis.



Ruesch, et al. 2017. Cryovolcanism on Ceres, *Science* 353.

Dawn recently compiled its most detailed gravity field of Ceres. While Ahuna Mons itself is too small to be spatially resolved in the derived gravity model, the gravitational anomaly of Ahuna and/or of the underlying structures are sensed by Dawn.

The gravity contour map below shows a **major positive anomaly centered near Ahuna Mons** (small red peak in the topographic map), that indicates a dense body of material is present in this region.

This is **consistent with a formation scenario involving dense brines.** As this feature is relatively recent (210±30 My old), this suggests that liquid could still exist in Ceres at present**.**