

**Post-Impact Modification of Craters on Titan by Aeolian and Fluvial Processes :
Lessons from Earth Analogs**

RALPH LORENZ^{1*}

¹*Johns Hopkins University Applied Physics Laboratory, Laurel, MD 20723, USA.*

*(*correspondence: Ralph.Lorenz@jhuapl.edu)*

While impact craters on icy worlds present novel challenges in that the impactor population and the target lithology/rheology is rather different from the terrestrial planets, Titan's craters as observed by the Cassini mission (and especially its radar mapper) have the additional difficulties that the craters are generally heavily modified. Not only are the craters generally shallower than their Ganymede counterparts, but there is direct evidence of aeolian infilling and fluvial modification. Submarine craters may also have formed on Titan. Examination of terrestrial analogs such as Roter Kamm (aeolian/pluvial modification), Lawn Hill (submarine) and Waqf as Suwaan (moderate fluvial) are helping with the interpretation of these structures.