Geophysical Research Abstracts Vol. 16, EGU2014-3006, 2014 EGU General Assembly 2014 © Author(s) 2014. CC Attribution 3.0 License.



Philae's landing and its impact on cometary regolith

Martin Hilchenbach

Max-Planck-Institut fuer Sonnensystemforschung, Katlenburg-Lindau, Germany (hilchenbach@linmpi.mpg.de)

Early November 2014 the Rosetta lander Philae will land on comet 67P/Churyumov-Gerasimenko. Unlike Stardust's high velocity deep impact on comet Tempel 1, the velocity at the time of impact of Philae is comparable to average walking speed. On impact, the momentum of the lander is transferred to the nucleus via the cometary surface layer or regolith. We will discuss the potential dusty mist due to Philae's soft landing and anchoring.