



## **Numerical simulations of sediment transport in Titan's rivers**

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### **Introduction**

Titan is a very special body in the Solar System. It is the only moon which has dense atmosphere and liquids on its surface. Thanks to the

Cassini-Huygens mission, we know that similar geological structures and processes (e.g. meandering, sediment transport, bank erosion) exist on Titan and on the Earth. In the present paper we compare these processes on the Earth and on Titan.

### **Results**

The results of our simulations show differences in behaviour of the flow and of sedimentation on Titan and on the Earth. Our results indicate that transport of material by Titan's rivers is more efficient than by terrestrial rivers for the same geometry parameters and initial conditions, and the main way of transport on Titan is suspended load.