Kurosawa K. Senshu H. Wada K. TDSS Team
Numerical Simulations of Impacts of a Half Spherical Shell Projectile on Small Asteroids
We carried out numerical simulations to investigate impact outcomes after impacts of a half spherical shell on small asteroids using the iSALE.

POSTER LOCATION #153

Shuvalov V. V. Artemieva N. A.
Craters Made by Severely Fragmented Asteroids
We model impact craters made by projectiles fragmented in Earth’s atmosphere and compare the results with small terrestrial craters and with experiments.

POSTER LOCATION #154

Lucchetti A. Cremonese G. Pajola M. Massironi M. Simioni E.
New Simulation of Phobos Stickney Crater
In this work we model the Phobos Stickney impact crater using the iSALE hydrocode and considering different scenarios that could form the well-studied crater.

POSTER LOCATION #155

Ivanov B. A.
Ceres: Possible Records of Giant Impacts
The modeling predicts central mounds at the rocky core surface for large impacts on Ceres. If they exist, under-ice mounds may be found with DAWN’s gravity mapping.

POSTER LOCATION #156

Bowling T. J. Johnson B. C. Melosh H. J.
Simulating Dwell Times at High Pressure and Temperature Following an Impact: Relating Thin Section to Source Crater
Numerical modeling suggests that the Tissint meteorite may have been ejected by a smaller impact than previously suggested by mineralogical studies.

POSTER LOCATION #157

Wünnemann K. Güldeemeister N. Poelchau M. H.
Scaling Meteorite Impact Crater Dimensions in Cohesive Rock by Numerical Modeling and Laboratory Experiments
We present a combined experimental and numerical modeling approach to further refine existing scaling laws relating impact energy with crater size.

POSTER LOCATION #158

Hopkins R. T. Osinski G. R.
Modelling the Effect of Sediment Thickness on Complex Impact Crater Morphology
We quantify the effect that sediment thickness has on final complex crater morphology for impacts into mixed sedimentary and crystalline targets.

POSTER LOCATION #159

Quintana S. N. Schultz P. H. Crawford D. A.
Target Strength as an Important Consideration for Low-Speed Impacts
1-D and 2-D impact simulation results suggest that the inclusion of strength may increase melt generation at low speeds compared to the hydrodynamic case.

POSTER LOCATION #160

Korycansky D. G. Catling D. C. Zahnle K. J.
Planetary Impacts and Atmospheric Escape
We report preliminary results on modeling of impacts into planetary atmosphere and impact-driven escape.

POSTER LOCATION #161

Artemieva N. A. Morgan J. V.
Formation of the Dual K-Pg Boundary Layer in North America
We model ejecta from Chixculub and their interaction with Earth’s atmosphere, trying to reproduce ejecta deposits at distances 1000–4000 km from the crater.

POSTER LOCATION #162
Monteux J. Arkani-Hamed J. POSTER LOCATION #163
Scaling Law of Impact Induced Shock Pressure in Planetary Mantle [#1891]
We use hydrocode simulations to derive scaling laws of impact-induced shock pressure in a differentiated Mars-sized body during its accretion from large impacts.

Davies E. J. Stewart S. T. Lillis R. J. POSTER LOCATION #164
Impact Basin Formation on Mars: From Borealis to the Late Heavy Bombardment [#2212]
Impact basin formation scaling laws for varying crustal thickness and thermal gradients. Borealis simulations with crust and strength.