Baldwin E. C. Vocadlo L. Crawford I. A.
*Validation of AUTODYN in Replicating Large-Scale Planetary Impact Events* [#1380]
AUTODYN is shown to be proficient in replicating planetary impact events. Future work is proposed to
combine numerical modelling with remotely sensed data from SMART-1.

Wünnemann K. Collins G. S. Melosh H. J.
*A Novel Porosity Model for Use in Hydrocode Simulations* [#1508]
As an alternative to existing porosity models, like the P-α model, we present a novel approach for dealing with
compaction of porosity in hydrocode calculations. In addition to the model description we provide a comparison
with experimental data.

Bray V. J. Collins G. S. Morgan J. V.
*Determination of the Acoustic Fluidization Parameters as Applied to Impacts on the Icy Satellites* [#1889]
We report on numerical modeling that aims to better constrain the impact process on the icy satellites and the effect
of rheologic target variations on crater depth and morphology.

Ong L. Gisler G. Weaver R. Gittings M.
*Numerical Simulations of Impactor Penetration into Ice-Over-Water Targets* [#2400]
Two-dimensional vertical impacts of ice projectiles into ice-over-water targets were modeled using the continuous
adaptive mesh Eulerian code RAGE. Simulations were of both laboratory- and Europa-scale impacts, and are
compared to experimental results of impacts into ice-on-water targets.

Wada K. Senshu H. Matsui T.
*Numerical Simulation of Impact Cratering on Adhesive Granular Material* [#1596]
We conduct numerical simulation of impact cratering on granular target with various adhesion. Our result
shows that the adhesion becomes important when the size of target particles is smaller than about 0.1 mm
on Earth, and 1 mm on Eros.

Ivanov B. A. Stöffler D.
*The Steinheim Impact Crater, Germany: Modeling of a Complex Crater with Central Uplift* [#1443]
Numerical modeling of the Steinheim impact crater formation is presented. The model reproduce the
complex crater morphology.

Ishimaru R. Senshu H. Sugita S. Matsui T.
*Numerical Simulation of Chemical Reactions Within a Vapor Plume Induced by Cometary Impact* [#1601]
We develop a new numerical code to simulate a gas-phase reaction network within an impact vapor plume formed
by a cometary impact and conduct numerical simulations for various impact conditions (e. g., a radius of comet
and an impact velocity).

Pierazzo E. Artemieva N. A.
*Atmospheric Fragmentation of the Canyon Diablo Meteoroid* [#2325]
We present initial estimates of the motion in the atmosphere of an iron projectile similar to Canyon Diablo,
to constraint the initial conditions of the impact event that generated Meteor Crater.