
Oral | Symbol P (Space and Planetary Sciences) | P-PS Planetary Sciences

[P-PS21_29AM2]Planetary Sciences

Convener:*Satoshi Okuzumi(Graduate School of Science, Tokyo Institute of Technology), Kosuke Kurosawa(Planetary Exploration Research Center, Chiba Institute of Technology), Chair: Peng Hong(Department of Complexity Science and Engineering, Graduate School of Frontier Sciences, The University of Tokyo), Masanori Onishi(Graduate School of Science, Kobe University)

Tue. Apr 29, 2014 11:00 AM - 12:45 PM 416 (4F)

We call for general interest papers for Planetary Sciences. Planetary Sciences consist of a variety of studies on the past, present, and future of our solar system and exoplanetary systems. Discussions based on various backgrounds are encouraged.

12:30 PM - 12:45 PM

[PPS21-P11_PG]Numerical modeling of impact phenomena using iSALE shock physics code

3-min talk in an oral session

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Keywords:Hypervelocity impacts, Shock physics code, Hydrocode calculation, Equations of state, strength model, iSALE

iSALE (impact-SALE) is a shock physics code based on the SALE hydrocode (Simplified Arbitrary Lagrangian Eulerian), which is an open code for planetary scientist. iSALE contains a number of option to model impact phenomena of geological materials. The calculation results can be easily visualized and analyzed using included software. A number of ANEOS tables and strength models of geological materials, including water ice, silicate rocks, and iron are also included. We have formed a user community called "iSALE users group in Japan" to introduce iSALE to the Japanese society for planetary science and to share information on the usage of iSALE. The URL of our wiki page and the mailing list are as follows. The URL of the wiki page of iSALE users group in

Japan [https://www.wakusei.jp/~impact/wiki/iSALE/Mailing list](https://www.wakusei.jp/~impact/wiki/iSALE/Mailing%20list) isale-users-jp@perc.it-chiba.ac.jp In the presentation, we show the results of a number of test calculations using iSALE. We gratefully acknowledge the developers of iSALE, including Gareth Collins, Kai Wünnemann, Boris Ivanov, Jay Melosh and Dirk Elbeshausen.