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Numerical modeling of impact phenomena using iSALE shock physics code

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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 isale-users-jp@perc.it-chiba.ac.jp

In the presentation, we show the results of a number of test calculations using iSALE.

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