

Proceedings of the 15th
HYPERVELOCITY IMPACT SYMPOSIUM (HVIS2019)

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Proceedings of the 15th Hypervelocity Impact Symposium (HVIS2019)

This proceedings contains papers and extended abstracts from the 2019 Hypervelocity Impact Symposium (HVIS 2019) held in Destin, Florida on April 16–20, 2019. This was the fifteenth symposium since the re-initiation of symposia related to hypervelocity impact in 1986. The proceedings for the previous fourteen symposia have been published as separate volumes of the International Journal of Impact Engineering and Procedia Engineering. Papers in this proceedings address advancements in the basic understanding of hypervelocity impact physics, related phenomenology, and engineering applications. Each paper in this proceedings has undergone peer review by experts in their respective fields of research.

The opening keynote address, following the tradition that was started in 1989, was given by the recipient of the Hypervelocity Impact Society's Distinguished Scientist Award, Dr. Dennis Grady (from Applied Research Associates). Keynote lectures on other days of the symposium were delivered by Dr. Werner Arnold (from MBDA-TDW) and Mr. Peter Sable (from Marquette University). The banquet speaker was Dr. Richard P. (“Dick”) Hallion (Trustee of Florida Polytechnic University) who gave a presentation entitled “Inventing Hypersonic Flight”.

A total of 96 papers were presented at the symposium. Among these were 32 papers selected for a special issue of the International Journal of Impact Engineering which can be found at <https://www.sciencedirect.com/journal/international-journal-of-impact-engineering/special-issue/10MTGP5W4VJ>. Extended abstracts of these papers appear in this proceedings. The first paper in this volume is a summary of the lecture given by Dr. David Crawford (from Crawford Technical Services), Distinguished Scientist Awardee from the 2017 HVIS Symposium held April 24-28 in Canterbury, Kent, UK. A total of 91 papers and abstracts appears in this proceedings.

I would like to thank the following individuals and groups who volunteered their time and expertise to make this symposium a reality: the Hypervelocity Impact Society board of directors, society committee chairs and committee members, the technical program chair, and the members of the HVIS 2019 technical program committee. Without their hard work, this symposium would not have been possible. Plans are to continue the Hypervelocity Impact Symposia, and we hope that the papers from future symposia can also become part of the archival literature.

David Littlefield

HVIS 2019 Symposium Chair

Editor, Proceedings of the 15th Hypervelocity Impact Symposium (HVIS2019)

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