

SHOCK13-2013-000822

Abstract for an Invited Paper  
for the SHOCK13 Meeting of  
the American Physical Society

**On the verification and validation of detonation models**

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This talk will consider the verification and validation of detonation models, such as Wescott-Stewart-Davis (Journal of Applied Physics. 2005), from the perspective of the American Institute of Aeronautics and Astronautics policy on numerical accuracy (AIAA J. Vol. 36. No. 1, 1998). A key aspect of the policy is that accepted documentation procedures must be used for journal articles with the aim of allowing the reported work to be reproduced by the interested reader. With the rise of electronic documents, since the policy was formulated, it is now possible to satisfy this mandate in its strictest sense: that is, it is now possible to run a computational verification study directly in a PDF, thereby allowing a technical author to report numerical subtleties that traditionally have been ignored. The motivation for this document-centric approach is discussed elsewhere (Quirk2003, Adaptive Mesh Refinement Theory and Practice, Springer), leaving the talk to concentrate on specific detonation examples that should be of broad interest to the shock-compression community.