

Abstract for an Invited Paper
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Shock Fitting Algorithms in Advanced Detonation Shock Dynamics Simulations

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A general formulation for shock fitting will be presented in regards to applications in detonation modeling. Solutions, where applicable, will be compared to traditional high resolution schemes. It will be shown that shock fitting can lead to a computational savings of several orders of magnitude for practical problems, when compared to shock capturing. Furthermore, for certain applications of higher-order Detonation Shock Dynamics modeling, shock fitting is a prerequisite.