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Spectroscopic Signature of Radiative Shocks¹ MICHEL BUSQUET,

ARTEP, inc — Radiative Shocks (RS) are shock strong enough that x-ray emitted by the compressed region launch a radiative precursor wave in the uncompressed region. RS can be found in SuperNovae atmospheres, accretion shocks, as well as in laboratory (>100 J laser,..) created strong shock. We use state-of-the art opacities and emissivities, to analyze spectral x-ray emission of strong shocks, and to study signatures of the onset of radiative precursor. Departure from a pure Marshak wave is found. Tentative of analysis of experiment on a laser driven radiative shock [1] will be presented.

[1] M. Busquet, F. Thais, E. Audit, M. González, J. Appl. Phys. 107 (2010) 083302 and references therein; ibid, arXiv:1005.1745vl

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