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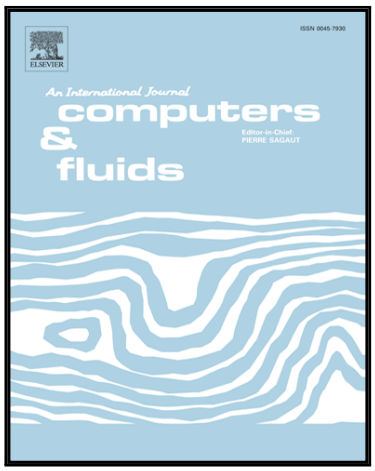

Ab Initio simulation of planar shock waves

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Highlights

- Plane shock waves of various gases were modeled on the basis of ab initio potential.
- Slopes of density and temperature were calculated in a wide range of Mach number.
- A significant influence of the potential on the shock wave structure was detected.
- Simulations are compared against other theoretical and experimental works.

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