Super-Critical Radiating Shock Wave

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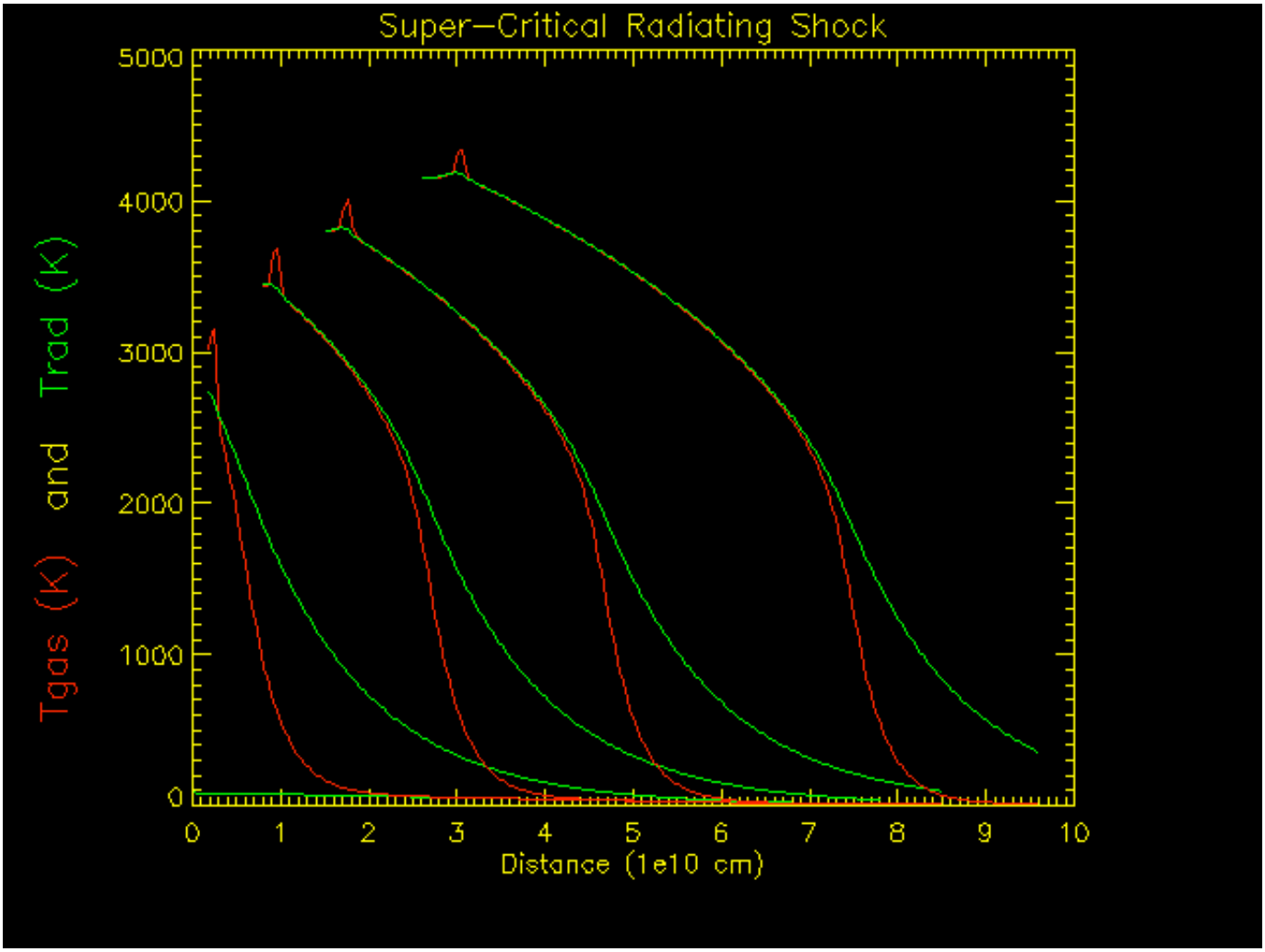
Description

A shock wave is generated in 1D cartesian geometry via a piston moving supersonically through the medium. The figure below shows plots of the gas and radiation temperatures as functions of a coordinate system moving at the speed of the piston. Plots are presented at four different evolution times.



The subroutine which initializes this problem is available here.

The zmp_inp file used to configure the code is available here.

The ASCII data files from which the figure was generated are available in the table below:

ASCII Data Dumps	
Time 1	usraa000000.001
Time 2	usraa000000.002
Time 3	usraa000000.003
Time 4	usraa000000.004

The IDL program used to create the image is available here. It calls a subprogram available here.