# Exact Solutions of the Riemann Problem 

Mladen Ivkovic
February 2019


123 problem at $\mathrm{t}=0.000$




123 problem at $\mathrm{t}=0.188$



left_blast_wave at $\mathrm{t}=0.000$



left_blast_wave at $\mathrm{t}=0.016$



right_blast_wave at $\mathrm{t}=0.000$



right_blast_wave at $\mathrm{t}=0.062$





