

## An Euler Solution Using Moving Least Square Reproducing Kernel Method

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### Abstract

A meshfree method is developed for the compressible Euler equations. The moving least square reproducing kernel (MLSRK) method is employed for space approximation whereas the backward-Euler method is used for time discretization. We present the numerical experiments such as supersonic flow over a biconvex airfoil and shock diffraction over a ramp in the shock tube. Validation of the numerical result is made for the shock diffraction problem using the exact oblique shock relation.