A level-set based Eulerian method for simulating problems involving high strain-rate fracture and fragmentation

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Highlights

- A new method is detailed for simulating fragmentation and ductile fracture
- An Eulerian model is solved on adaptive mesh refinement grids using shock capturing methods
- A levelset based method is used to track and resolve boundary conditions of free surfaces and cracks
- Method is demonstrated by three-dimensional simulation of high strain rate ex- panding ring experiments