

In this paper, we report the development and validation of a compressible solver with shock capturing, using a domain-specific high-level abstraction framework, OPS, that is being developed at the University of Oxford. OPS uses an active library approach for block-structured meshes, capable of generating codes for a variety of parallel implementations with different parallelisation strategies. Performance results on various architectures are reported for the 1D Shu–Osher test case.