Charles Armstrong* (carms015@odu.edu), Old Dominion University, Department of Mathematics and Statistics, 2300 ECSB, Norfolk, VA 23529, and Yan Peng. Efficeny of the Multigrid Lattice Boltzmann Method. Preliminary report.

Various multigrid configurations are implemented to solve the lid driven cavity flow problem using the lattice Boltzmann method. The computational efficiency of the v-cycle and w-cycle are compared. Factors such as the resolution on the finest grid and the number of grid levels are discussed. The computational efficiency and accuracy of the results are presented and an optimal configuration is proposed. (Received January 15, 2017)