

AMGLab: Algebraic Multigrid in Matlab to Parallel Supercomputing

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AMGLab is an open source, scientific community oriented project to allow nonexperts to experiment with AMG algorithms and then be able to choose a robust parallel AMG solver. Industrial class problems are the target. However, student level problems, suitable for classes, are also a target. The project has been centered at the University of Kentucky, University of Graz, and the University of Linz. The speaker has recently moved to the University of Wyoming. In this talk, we will discuss what is implemented in Matlab, what exists for production level parallel codes, and how others can become part of the project by contributing to the open source project.