

Talk announcement

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Preconditioning of least squares formulations of a parabolic evolution equation

In this talk, we consider the heat equation as a model problem of the class of parabolic evolution equations. We consider a least squares formulation of the problem. The standard mapping properties of the differential operator indicate how to choose the minimization functional and the preconditioner. The realization of the preconditioner involves the solution of a (discretized) differential equation. We will explore how that differential equation can be solved with hierarchical solvers, like multigrid and multilevel solvers.