Talk announcement

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Remarks on the Convergence of Successive Subspace Correction (SSC) Methods

The convergence of a local multigrid method is typically studied by considering it as a SSC method, the convergence of which is based on the stability of the underlying space decomposition, as well as a corresponding strengthened Cauchy-Schwarz (SCS) inequality, see e.g. [Xu 1992], [Yserentant 1993], [Chen et al. 2012]. On this abstract level, the available literature agrees on the assumption of space decomposition stability, however, not on the SCS inequality. We consider a unified framework for comparing various SCS inequalities and discuss the corresponding convergence statements.