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# Multigrid methods and numerical homogenization

*Wednesday, 19 June 2019 10:00 (45 minutes)*

Numerical homogenization tries to approximate solutions of elliptic partial differential equations with strongly oscillating coefficients by the solution of localized problems over small subregions. I will present in this talk two classes of such methods that can both be analyzed by means of the now classical theory of iterative methods developed in the early nineties of the last century. One is itself a rapidly convergent iterative method and the other one is based on the construction of modified, problem adapted discrete solution spaces.

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