Strong Operator Convergence in Homogenization of PDEs with Nonlocal Coefficients

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In this talk, we will revisit the classical notion of homogenization of div-grad-systems (H-convergence) and its operator-theoretic description that allows for more general systems with possibly nonlocal coefficients (nonlocal H-convergence provided by M. Waurick). We will introduce a convergence theorem for the corresponding solution operators, and we will discuss its sharpness in the sense of weak vs. strong operator convergence. This is joint work with S. Franz, N. Skrepek and M. Waurick.