

SPEAKER:

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TITLE:

Quantitative Results for Darcy's Law

ABSTRACT:

In this talk I will discuss some recent work on quantitative results for Darcy's Law. We consider the stationary Stokes equations in a periodically perforated domains with Dirichlet conditions on the boundaries of solid obstacles. As the number of obstacles increases, the limiting equations are governed by Darcy's law. Here we shall be interested in the sharp convergence rates and large-scale regularity estimates for solutions.