Homogenization of random Navier-Stokes type system for electrorheological fluid

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Keywords: Homogenization, Navier-Stokes, Electrorheological fluid

Abstract. *The talk will focus on homogenization of Navier-Stokes type system describing electrorheological fluid with random characteristics. Assuming that the viscous stress tensor of the fluid satisfies p(.) growth conditions with random rapidly oscillating function p, we derive the homogenized model and study the properties of the effective tensor.*