



Contribution ID: 231

Type: **Poster (+) Presentation**

Stochastic homogenization of some porous media models

Thursday, 3 June 2021 14:40 (1 hour)

We will be dealing with various models from porous media stemming from applications in filtration processes. Our models includes the reaction diffusion and the convection diffusion models coupled with a stochastic differential equation.

Our models are highly heterogeneous in time and space.

Our main result consists of deriving the macroscale equation. We show that the resulting macroscale equation is deterministic. The convergence analysis involves the cell problem and the invariant measure of the stochastic differential equation.

Time Block Preference

Time Block A (09:00-12:00 CET)

References

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Newsletter

Student Poster Award

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Session Classification: Poster +

Track Classification: (MS6-A) Physics of multi-phase flow in diverse porous media