ID de Contribution: **22** Type: **Contributed talk**

A fixed-point approach to Clausius-Mossotti formulas

mercredi 17 novembre 2021 12:00 (30 minutes)

Homogenisation theory allows to encapsulate the effective behaviour of heterogeneous materials in special averaged quantities called homogenised coefficients. in this talk, I will study the behavior of these coefficients for (random) two phases media in the dilute regime, i.e when the volume fraction of one of the phases is small. More precisely, I will investigate a dilation model where inclusions are distributed in a constant background along a stationary ergodic point process dilated by a factor L. I will show that the associated homogenised Coefficient depends analytically on L^−1 in the dilute regime L » 1.
The approach, that I will outline, relies on a fixed point formulation for the corrector in term of the so-called single inclusion solution and holds without the need of any quantitative theory.

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