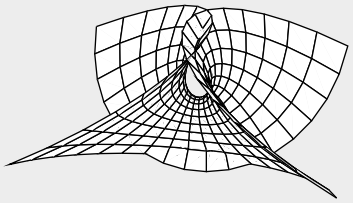

Einladung zum Oberseminar Mathematik in den Naturwissenschaften

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Mathematik in den Naturwissenschaften

Arianna Giunti

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Homogenization in randomly perforated domains

We consider the homogenization of Poisson and Stokes equations in a bounded domain of $\mathbb{R}^d$, $d > 2$, perforated by many small random holes. We assume that the holes are generated by suitably rescaled balls having random radii and centers (i.e. *Boolean process*). Our main assumption is that the random radii of the Boolean process have finite $(d-2)$-moment: This condition is minimal in order to ensure that the average density of capacity generated by the holes is finite, but still allows for the onset of clustering balls with overwhelming probability. By combining analytic and probabilistic, percolation-like methods, we provide homogenization results for a large class of measures as above.

This talk is based on joint works with R.M. Höfer and J.J.L. Velázquez (University of Bonn).

Ort: Zoom video conference | Zeit: Freitag, 10.07.2020 um 10:15 Uhr

You are cordially invited to this lecture. Request the Zoom link from anja.schloemerkemper@mathematik.uni-wuerzburg.de

gez. Anja Schlömerkemper