



## Mathematics and CS Seminar

# Effective multipoles in random media

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Host: Julian Fischer

In a homogenous medium, the far-field generated by a localized source can be expanded in terms of multipoles, whose coefficients are determined by the moments of localized charge distribution. I will show that this is to some extent true also in a random medium in the case of (quantitative) stochastic homogenization: for example, in three space dimensions, the effective dipole and quadrupole, but not octapole, can be inferred (with overwhelming probability) without knowing the realization of the coefficient field away from the source and the point of interest. This is a joint work with Arianna Giunti and Felix Otto.

**Thursday, April 5, 2018 10:00am - 12:00pm**

Mondi Seminar Room 2, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.