1135-35-2063 **Jessica Lin*** (jessica.lin@mcgill.ca), Department of Mathematics, Burnside Hall, Montreal, QC H2J2M8, Canada. *An Introduction to Stochastic Homogenization.*

One way of modeling phenomena in "typical" physical settings is to study partial differential equations (PDEs) in random environments. The subject of stochastic homogenization is concerned with identifying the asymptotic behavior of solutions to PDEs with random coefficients. Specifically, we are interested in the following: if the random effects are microscopic compared to the lengthscale at which we observe the phenomena, can we predict the behavior which takes place on average? For certain models of PDEs and under suitable hypotheses on the environment, the answer is affirmative. In this talk, I will introduce this subject area and present a few models for which we know homogenization occurs. (Received September 25, 2017)