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David Nualart, 1460 Jayhawk blvd, Snow Hall 405, University of Kansas, Math department, Lawrence, KS 66045, and **Guangqu Zheng***, 1460 Jayhawk Blvd, Snow Hall 405, University of Kansas, Math department, Lawrence, KS 66045. *Breuer-Major type averaging with applications.* Preliminary report.

In this talk, based on joint work with David Nualart, we will first recall the classical Breuer-Major theorem for a real stationary Gaussian process, then we present two results with the same flavor. Finally we provide two applications accordingly: one for the random corrector problem arising in a random homogenization context, the other for the spatial average of linear stochastic heat equation driven by space-time Gaussian colored noise. (Received July 09, 2019)