Stochastic 3D Rotating Navier-Stokes Equations: Averaging, Convergence, Regularity and Uncertainty Quantification

Stochastic 3D rotating Navier-Stokes equations are considered as a paradigm in mathematical and computational studies of coupled nonlinear, stochastic and wave dynamics in multiscale problems. Averaging theorems for the stochastic problems are proven. Convergence results are established by bootstrapping from global regularity of the limit stochastic equations (joint work with F. Flandoli).

References:
