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Annika Lang - Computing solutions to stochastic partial differential equations on surfaces

Wednesday, 22 May 2024 14:00 (45 minutes)

Looking around us, many surfaces including the Earth are no plain Euclidean domains but special cases of Riemannian manifolds. One way of describing uncertain physical phenomena on these surfaces is via stochastic partial differential equations. In this talk, I will introduce how to compute approximations of solutions to such equations and give convergence results to characterize the quality of the approximations. Furthermore, I will show how these solutions on surfaces are a first step towards the computation of time-evolving stochastic manifolds.