Programme du 50e : Méthodes computationnelles rigoureuses et topologiques
pour la dynamique en grande dimension
« Atelier sur la dynamique de calcul rigoureuse dans des dimensions infinies »
3 au 6 avril 2019

50th anniversary program : Topological and Rigorous Computational Methods
for High Dimensional Dynamics
"Workshop on Rigorous Computational Dynamics in Infinite Dimensions"
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Validated computations for stochastic differential equations

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The global dynamics of stochastic systems is usually hard to analyze, yet some of their key features can be studied via associated deterministic problems, whose solutions can be numerically computed and rigorously validated. I will discuss two problems where this general strategy can be applied: the study of minimum energy paths for metastable systems, and the occurrence of coherence resonance in excitable systems.

This is a joint work (in progress) with Christian Kuehn.

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