

Random attractors for stochastic Navier-Stokes equations in some unbounded domains

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Abstract

We investigate stochastic Navier-Stokes Equations with additive noise. It is known for some time, see [4], that in the case of bounded domain the RDS generated by these equations has a unique attractor and that for unbounded Poincaré domains, that RDS is asymptotically compact, see [2]. We extend these results to show existence of a global minimal random attractor also in the latter case. We will discuss possibility of extending these results to the case of NSEs with multiplicative noise, a model first introduced in [1] and studied recently by by Capiński and Cutland [3] and Mikulevicius and B.L. Rozovskii [5] This talk is based on joint works with Yuhong Li and Jose Langa.

References

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