## STABILITY IN DISTRIBUTION OF STOCHASTIC PARTIAL DIFFERENTIAL EQUATIONS

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**Abstract**: In this talk, we investigate stochastic partial differential equations. By introducing a suitable metric between the transition probability functions of mild solutions, we derive sufficient conditions for stability in distribution of mild solutions. Consequently, we generalize some existing results of finite dimensional cases to infinite dimensional cases. Finally, some examples are given to demonstrate the applicability of our theory.

## References

- J. Bao, Z. Hou and C. Yuan, Stability in distribution of mild solutions to stochastic partial differential equations, Proc. Amer. Math. Soc. 138 (2010) 2169-2180.
- [2] J. Bao, A. Truman and C. Yuan, Stability in Distribution of Mild Solutions to Stochastic Partial Differential Delay Equations with Jumps, Proceeding of The Royal Society A 465 (2009), 2111-2134..