

**INSTITUTE OF MATHEMATICAL SCIENCES
UNIVERSITI MALAYA**

SIRI SEMINAR KUMPULAN PENYELIDIKAN

- Title:** Higher order time discretization for the stochastic semilinear wave equation with multiplicative noise.
- Speaker:** Dr. Akash Ashirbad Panda
- Date:** 10 July 2024 (Wednesday)
- Time:** 10.00 am -11.00 am
- Venue:** Hybrid mode:
- MM3, Level 2, Institute of Mathematical Sciences, Faculty of Science, Universiti Malaya.
 - MS Teams
<https://rb.gy/ofsi8y>

ABSTRACT

In this talk, I will introduce a higher-order time-discretization scheme, where iterates approximate the solution of the stochastic semilinear wave equation driven by multiplicative noise with general drift and diffusion. A variational method for its error analysis is employed and an improved convergence order of $3/2$ for the approximates of the solution is shown. The core of the analysis is H'' older continuity in time and moment bounds for the solutions of the continuous and the discrete problem. Computational experiments will also be presented.

All are Welcome