“Doc in Progress” and #iorestoacasa are pleased to introduce you to

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PhD Student in Mathematics

On the Stochastic Allen-Cahn Equation with Logarithmic Potential

The Allen-Cahn equation, in the stochastic setting, has mainly been studied using the so-called polynomial potential. Such potential is certainly easy to handle from a mathematical point of view, however, it is only an approximation of the more thermodynamically consistent logarithmic potential. During this talk, I will give a brief introduction to the variational approach to stochastic PDEs. I will then introduce the stochastic Allen-Cahn equation with logarithmic potential. Finally, I will prove the existence and uniqueness of a variational solution to this equation by exploiting a Yosida regularization and by choosing a suitable form of multiplicative noise. This talk is based on my master’s thesis.

Thursday, May 6 – at 15:00
The seminar will be online, using the Zoom software.

To participate in the event, please contact sara.sottile@unitn.it using an institutional e-mail address.