



THE ENERGY-DISSIPATION PRINCIPLE FOR STOCHASTIC PARABOLIC EQUATIONS

LUCA SCARPA

Department of Mathematics, Politecnico di Milano,
via E. Bonardi 9, 20133 Milano, Italy.
(E-mail: luca.scarpa@polimi.it)

and

ULISSE STEFANELLI

Faculty of Mathematics, University of Vienna,
Oskar-Morgenstern-Platz 1, A-1090 Vienna, Austria,
Vienna Research Platform on Accelerating Photoreaction Discovery, University of Vienna,
Währinger Str. 17, 1090 Vienna, Austria, and
Istituto di Matematica Applicata e Tecnologie Informatiche “E. Magenes” - CNR,
via Ferrata 1, I-27100 Pavia, Italy
(E-mail: ulisse.stefanelli@univie.ac.at)

Abstract. The Energy-Dissipation Principle provides a variational tool for the analysis of parabolic evolution problems: solutions are characterized as so-called null-minimizers of a global functional on entire trajectories. This variational technique allows for applying the general results of the calculus of variations to the underlying differential problem and has been successfully applied in a variety of deterministic cases, ranging from doubly nonlinear flows to curves of maximal slope in metric spaces. The aim of this note is to extend the Energy-Dissipation Principle to stochastic parabolic evolution equations. Applications to stability and optimal control are also presented.

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