ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Backward Stochastic Differential Equations, PDEs and Deep Neural Networks

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Chaired by Michaela Hitz | Department of Statistics

Wednesday, 13 January 2021 | 10:00–10:45

https://classroom.aau.at/b/anw-ezd-k9g

ABSTRACT

Backward stochastic differential equations (BSDEs) arise in finance, stochastic control, nonlinear conditional expectation and various other fields. After a short introduction, we will discuss existence and uniqueness of solutions to such BSDEs. We will connect BSDEs to parabolic and elliptic PDEs through a correspondence due to the Feynman-Kac formula. Finally, we will discuss how to solve BSDEs numerically and present a neat approach using deep neural networks.

We hope to see you there!