Invitation to the
Doctoral Seminar

DI Stefan Kremsner
Universität Graz

“Backward Stochastic Differential Equations, PDEs and Deep Neural Networks”

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

Wednesday, 13 January 2021

10:00 a.m.

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.

Michaela Szölgyenyi and the Department of Statistics look forward to seeing you at the talk!