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**ONE WORLD OPTIMIZATION SEMINAR**

June 14th 2021 @ 15:30 CEST (Central European Summer Time)

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## Subregular Recourse in Multistage Stochastic Optimization

**Abstract.** We discuss nonlinear multistage stochastic optimization problems in the spaces of integrable functions. The problems may include nonlinear dynamics and general objective functionals with dynamic risk measures as a particular case. We present analysis about the causal operators describing the dynamics of the system and the Clarke subdifferential for a penalty function involving such operators. We introduce concept of a subregular recourse in nonlinear multistage stochastic optimization and establish subregularity of the resulting systems in two formulations: with built-in nonanticipativity and with explicit nonanticipativity constraints. Optimality conditions for both formulations and their relations will be presented.

This is a joint work with Andrzej Ruszczynski, Rutgers University, New Jersey.

*The link of the zoom-room of the meeting and the corresponding password will be announced the day before the talk on the mailing list of the seminar, to which one can subscribe on https://owos.univie.ac.at.*