

In der Reihe „Chemnitzer Mathematisches Colloquium“ der Fakultät für Mathematik der TU Chemnitz spricht

Herr Prof. Dr. Georg Pflug (Universität Wien)

über das Thema

Ambiguity in contract pricing and in portfolio selection.

Der Vortrag findet am

**Donnerstag, dem 27. April 2017, um 16.00 Uhr im Raum B202,
Reichenhainer Straße 70**

statt.

Ich möchte Sie hiermit recht herzlich zu dieser Veranstaltung einladen. Das Kolloquium wird von Herrn Prof. Alois Pichler geleitet.

Abstract:

Stochastic decision models suffer often from the drawback that decisions are quite dependent on the probability distribution of the uncertain parameters, but our knowledge about these distributions is limited and only based on some observed data. In this talk, we consider the distributionally robust approach of decision making in finance. The robust approach takes the consideration of possible model errors as an integral part into account.

Our model errors are of nonparametric type and are based on either Wasserstein-type distances or their multistage generalization called nested distances. We show that in portfolio optimization, the assumption of total model ignorance leads to the uniform investment portfolio, while the ignorance of the dependency structures leads to a totally concentrated portfolio. We also consider the so-called acceptability pricing of financial contracts. Instead of a.s (super)replication, which allow the contractor to completely hedge the risk away, the price is set in a way which leaves just an acceptable risk to the contractor. We show how in incomplete markets the bid-ask spread is reduced with increasing levels of acceptability, but even in complete markets a bid-ask spread may open under model ambiguity.

Prof. Dr. Christoph Helmberg
Dekan

