

October 9 , 2013
KAP 414
2:00 PM – 3:00 PM

Prof. Uwe Schmock
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“Adapted dependence and applications to risk management

Abstract: We consider contingent claims which have a pay-out determined by a stochastic process and a stopping time or, more generally, by an adapted random probability measure. We allow these to be dependent, but require that the stopping time, or the adapted random probability measure, respectively, follows a predefined distribution, which is the main difference to an American-style option. We introduce the setting of the problem in discrete and continuous time and present upper and lower bounds. We discuss the existence of an optimal exercise strategy, and for some special cases we also present explicit solutions. Furthermore, we mention some applications in financial and actuarial risk management.

(This is joint work with Karin Hirhager)