Talk 13: Giulia Di Nunno (University of Oslo)

Title: Horizon risk and interest rates uncertainty in dynamic risk measuring

Abstract. Horizon risk is introduced as the evaluation of the exposure to potentially erroneous risk measurement when using a risk measure that is not adequate to the actual time horizon of the position. We clarify that classical dynamic risk measures are subject to horizon risk, so we propose to work with fully-dynamic risk measures. We design fully-dynamic risk measures that can capture horizon risk. In a financial context, we combine horizon risk with other uncertainties of future market scenarios, such as interest rates uncertainty, thus we extend the arguments and suggest the use of a cash non-additive version of fully- dynamic risk measures. We construct such risk measures via backward stochastic differential equations or via shortfall-type representation. As illustration, we introduce the class of hq-entropic risk measures.