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On a Class of Dynamic Spectral Risk-Measures

Abstract

Spectral risk measures (also known as Weighted Value at Risk) are static risk measures that are widely deployed in risk analysis due to their intuitive and explicit form, and stand in a one-to-one relation to distorted expectations (or distortion operators) proposed in Wang (1996) in the context of calculation of insurance premiums and pricing financial risks. In this talk we present a new class of dynamic risk-measures which may be regarded as a dynamic extension of static spectral risk-measures or distortion operators. We discuss properties of such dynamic risk-measures, and show that such continuous-time risk-measures arise as the limit of discrete-time spectral risk-measures under vanishing time-step. This talk is based on joint work with M. Stadje and D. Madan.