

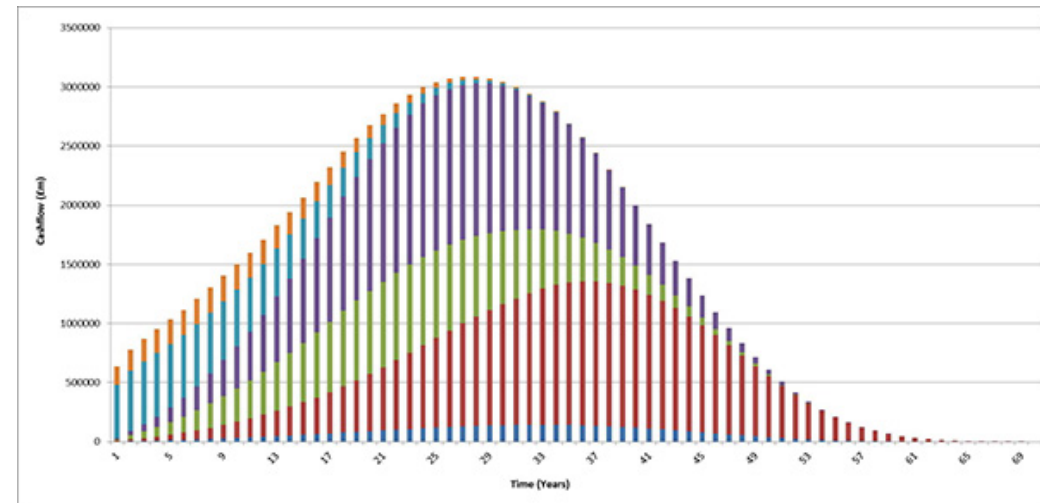
# A Survey of Risk-Sensitive Investment Management

Prof. Mark Davis

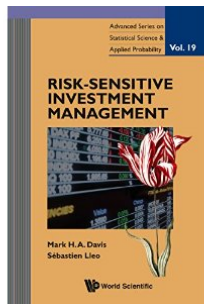
*Imperial College, London*



Applications of risk-sensitive stochastic control to problems of optimal investment were pioneered by Bielecki and Pliska in the 1990s and there were subsequent important contributions by others, including Kuroda, Nagai and Peng. Following on from this work, Davis and Sébastien Lleo have extended the theory in various directions, most notably to cover asset price models with jumps, and the talk will cover some of these developments. The accent is on the relation between the control problem and the associated HJB (Hamilton-Jacobi-Bellman) equation, and there are



some surprises: for example in certain models the solution to the control problem is characterized by a parabolic PDE with no non-local term, even though the underlying asset model has jumps.



The full story is contained in our recently published book

*Risk Sensitive Investment Management*

(World Scientific, 2014)