JEAN-FRANÇOIS RENAUD, UQAM
Maximization of dividend payments with a concave bound on the dividend rate

In a Brownian model, we revisit Bruno de Finetti's optimal dividends problem for absolutely continuous strategies by imposing a path-dependent concave bound on the rate of dividend payments. This is a generalization of the classical version of this problem as studied by Jeanblanc and Shiryaev (1995) and in which the rate is uniformly bounded. Our main result consists in proving that a so-called mean-reverting strategy is optimal. Then, we consider the associated bail-out optimization problem in which the cash process must be kept solvent. Again, we obtain that it is optimal to pay out dividends using a mean-reverting strategy, while bail-out payments are made to avoid bankruptcy.

This talk is based on joint papers with Félix Locas, Alexandre Roch and Clarence Simard.