

# De Finetti's dividend problem with absolutely continuous controls

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**Abstract.** In this talk we take a look at an offshoot of de Finetti's dividends problem for Lévy processes with no upward jumps. Namely, we consider the version of the control problem in which the dividend strategies are assumed to have a density which is uniformly bounded by a constant. We look for conditions on either the jump measure or on the scale function of the Lévy process, that guarantee that a certain simple bang-bang policy forms the optimal dividend strategy. The main difficulty lies in handling the convolution term appearing in the value function of such a strategy.

**Keywords** Lévy process - stochastic control - scale function