
Abstract: We show how the dynamical Bayesian approach can be used in the initial enlargement of filtrations theory. We use this approach to obtain new proofs and results for Lévy processes. We apply the Bayesian approach to some problems concerning asymmetric information in pricing models, including so-called weak information approach introduced by Baudoin, as well as some other approaches. We give also Bayesian interpretation of utility gain related to asymmetric information.

AMS subject classifications: 60G44, 91B28, 62B10

Keywords: dynamical Bayesian modelling, enlargement of filtration, asymmetric information, Lévy processes

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