Dario Gasbarra, Esko Valkeila, Lioudmila Vostrikova: Enlargement of filtration and additional information in pricing models: a Bayesian approach; Helsinki University of Technology Institute of Mathematics Research Reports A476 (2004).

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

Correspondence

Department of Mathematics and Statistics, P.O. Box 68, FIN-00014 University of Helsinki, email: Dario.Gasbarra@rni.helsinki.fi

Institute of Mathematics, P.O. Box 1100, FIN-02015 Helsinki University of Technology, e-mail: Esko.Valkeila@tkk.fi

Départment de Mathématiques, Universite d'Angers, 2 Boulevard de Lavoisier, 49045 Angers cedex 01, France, e-mail: vostrik@univ-angers.fr

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Helsinki University of Technology Department of Engineering Physics and Mathematics Institute of Mathematics P.O. Box 1100, 02015 HUT, Finland email:math@hut.fi http://www.math.hut.fi/