# Preface

The series of advanced courses, initiated in Séminaire de Probabilités XXXIII, continues with a course of Ivan Nourdin on Gaussian approximations by Malliavin calculus. The *Séminaire* also occasionally publishes a series of contributions on some given theme; in this spirit, some participants from September 2011 Conference on Stochastic Filtrations, held in Strasbourg and organized by Michel Émery, have contributed to this volume. The rest of the volume covers a wide range of themes, such as stochastic calculus and Markov processes, random matrices and free probability, and combinatorial optimization. These contributions come from the spontaneous submissions or were solicited by the editors.

We remind that the web site of the Séminaire is

http://portail.mathdoc.fr/SemProba/

and that all the articles of the Séminaire from Volume I in 1967 to Volume XXXVI in 2002 are freely accessible from the web site

http://www.numdam.org/numdam-bin/feuilleter?j=SPS

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