1. Record Nr. UNINA9910144619503321 Autore Tavaré Simon Titolo Lectures on Probability Theory and Statistics : Ecole d'Eté de Probabilités de Saint-Flour XXXI - 2001 / / by Simon Tavaré, Ofer Zeitouni; edited by Jean Picard Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa . 2004 3-540-39874-0 **ISBN** [1st ed. 2004.] Edizione 1 online resource (VIII, 316 p.) Descrizione fisica École d'Été de Probabilités de Saint-Flour, , 0721-5363 ; ; 1837 Collana 519.2 Disciplina Soggetti **Probabilities Biomathematics** Probability Theory and Stochastic Processes Genetics and Population Dynamics Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia "... lectures were given at the 31st Probability Summer School in Saint-Note generali Flour (July 8-25, 2001) ..."--Preface. Nota di bibliografia Includes bibliographical references. Nota di contenuto pt. 1. Ancestral inference in population genetics / Simon Tavare -- pt. 2. Random walks in random environment / Ofer Zeitouni. Sommario/riassunto This volume contains lectures given at the 31st Probability Summer School in Saint-Flour (July 8-25, 2001). Simon Tavaré's lectures serve as an introduction to the coalescent, and to inference for ancestral processes in population genetics. The stochastic computation methods described include rejection methods, importance sampling, Markov chain Monte Carlo, and approximate Bayesian methods. Ofer Zeitouni's course on "Random Walks in Random Environment" presents systematically the tools that have been introduced to study the model. A fairly complete description of available results in dimension 1 is given. For higher dimension, the basic techniques and a discussion of some of the available results are provided. The contribution also

includes an updated annotated bibliography and suggestions for further reading. Olivier Catoni's course appears separately.