Record Nr. UNISALENTO991002944349707536 **Titolo** Stochastic geometry, spatial statistics and random fields [e-book]: models and algorithms / edited by Volker Schmidt Pubbl/distr/stampa Cham [Switzerland]: Springer International Publishing, 2015 **ISBN** 9783319100647 Descrizione fisica 1 online resource Collana Lecture notes in mathematics, 1617-9692; 2120 Classificazione AMS 60-06 AMS 60D05 AMS 60G60 AMS 62H11 LC QA274-274.9 Altri autori (Persone) Schmidt, Volker Disciplina 519.2 Soggetti Algorithms Geometry Distribution (Probability theory) Lingua di pubblicazione Inglese **Formato** Software Livello bibliografico Monografia Stein's Method for Approximating Complex Distributions, with a View Nota di contenuto towards Point Processes -- Clustering Comparison of Point Processes. with Applications to Random Geometric Models -- Random Tessellations and their Application to the Modelling of Cellular Materials -- Stochastic 3D Models for the Micro-structure of Advanced Functional Materials -- Boolean Random Functions -- Random Marked Sets and Dimension Reduction -- Space-Time Models in Stochastic Geometry -- Rotational Integral Geometry and Local Stereology - with a View to Image Analysis -- An Introduction to Functional Data Analysis -- Some Statistical Methods in Genetics -- Extrapolation of Stationary Random Fields -- Spatial Process Simulation -- Introduction to Coupling-from-the-Past using R -- References -- Index Providing a graduate level introduction to various aspects of stochastic Sommario/riassunto geometry, spatial statistics and random fields, this volume places a special emphasis on fundamental classes of models and algorithms as well as on their applications, for example in materials science, biology

and genetics. This book has a strong focus on simulations and includes

extensive codes in Matlab and R, which are widely used in the mathematical community. It can be regarded as a continuation of the recent volume 2068 of Lecture Notes in Mathematics, where other issues of stochastic geometry, spatial statistics and random fields were considered, with a focus on asymptotic methods