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Titolo	Stochastic geometry, spatial statistics and random fields : models and algorithms / edited by Volker Schmidt
Pubbl/distr/stampa	Cham [Switzerland] : Springer International Publishing, c2015
ISBN	9783319100630
Descrizione fisica	xxiv, 464 p. : ill. ; 24 cm
Collana	Lecture notes in mathematics, 0075-8434 ; 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	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Stein’s Method for Approximating Complex Distributions, with a View 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
Sommario/riassunto	Providing a graduate level introduction to various aspects of stochastic 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