

Singular Random Dynamics

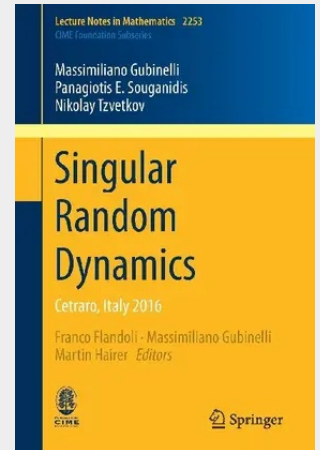
Cetraro, Italy 2016

Written by leading experts in an emerging field, this book offers a unique view of the theory of stochastic partial differential equations, with lectures on the stationary KPZ equation, fully nonlinear SPDEs, and random data wave equations. This subject has recently attracted a great deal of attention, partly as a consequence of Martin Hairer's contributions and in particular his creation of a theory of regularity structures for SPDEs, for which he was awarded the Fields Medal in 2014.

The text comprises three lectures covering: the theory of stochastic Hamilton–Jacobi equations, one of the most intriguing and rich new chapters of this subject; singular SPDEs, which are at the cutting edge of innovation in the field following the breakthroughs of regularity structures and related theories, with the KPZ equation as a central example; and the study of dispersive equations with random initial conditions, which gives new insights into classical problems and at the same time provides a surprising parallel to the theory of singular SPDEs, viewed from many different perspectives.

These notes are aimed at graduate students and researchers who want to familiarize themselves with this new field, which lies at the interface between analysis and probability.

Written by leading experts in an emerging field, this book offers a unique view of the theory of stochastic partial differential equations, with lectures on the stationary KPZ equation, fully nonlinear SPDEs, and random data wave equations. This subject has recently attracted a great deal of attention, partly as a consequence of Martin Hairer's contributions and in particular his creation of a theory of regularity structures for SPDEs, for which he was awarded the Fields Medal in 2014. The text comprises three lectures covering: the theory of stochastic Hamilton–Jacobi equations, one of the most intriguing and rich new chapters of this subject; singular SPDEs, which are at the cutting edge of innovation in the field following the breakthroughs of regularity structures and related theories, with the KPZ equation as a central example; and the study of dispersive equations with random initial conditions, which gives new insights into classical problems and at the same time provides a surprising parallel to the theory of singular SPDEs, viewed from many different perspectives. These notes are aimed at graduate students and researchers who want to familiarize themselves with this new field, which lies at the interface between analysis and probability.



53,49 €
49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783030295448
Medium: Buch
ISBN: 978-3-030-29544-8
Verlag: Springer
Erscheinungstermin: 13.11.2019
Sprache(n): Englisch
Auflage: 1. Auflage 2019
Serie: Lecture Notes in Mathematics
Produktform: Kartoniert
Gewicht: 499 g
Seiten: 316
Format (B x H): 155 x 235 mm

