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| Autore                  | Tsirelson Boris   |
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| Descrizione fisica      | 1 online resource (VIII, 200 p.)  |
| Collana                 | École d'Été de Probabilités de Saint-Flour, , 0721-5363 ; ; 1840  |
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| Disciplina              | 519.2   |
| Soggetti                | Probabilities<br>Statistical physics<br>Dynamics<br>Probability Theory and Stochastic Processes<br>Complex Systems<br>Statistical Physics and Dynamical Systems   |
| Lingua di pubblicazione | Inglese   |
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| Nota di contenuto       | Preface -- Part I: Boris Tsirelson: Scaling Limit, Noise, Stability -- Introduction -- A First Look -- Abstract Nonsense of the Scaling Limit -- Scaling Limit and Independence -- Example: The Noise Made by a Poison Snake -- Stability -- Generalizing Wiener Chaos -- Example: The Brownian Web as a Black Noise -- Miscellany -- References -- Index -- Part II: Wendelin Werner: Random Planar Curves and Schramm-Loewner Evolutions -- Introduction -- Loewner Chains -- Chordal SLE -- Chordal SLE and Restriction -- SLE and the Brownian Frontier -- Radial SLE -- Some Critical Exponents for SLE -- Brownian Exponents -- SLE, UST and LERW -- SLE and Critical Percolation -- What is Missing -- References. |
| Sommario/riassunto      | This is yet another indispensable volume for all probabilists and collectors of the Saint-Flour series, and is also of great interest for mathematical physicists. It contains two of the three lecture courses given at the 32nd Probability Summer School in Saint-Flour (July 7-24,  |

2002). Boris Tsirelson's lectures introduce the notion of nonclassical noise produced by very nonlinear functions of many independent random variables, for instance singular stochastic flows or oriented percolation. Two examples are examined (noise made by a Poisson snake, the Brownian web). A new framework for the scaling limit is proposed, as well as old and new results about noises, stability, and spectral measures. Wendelin Werner's contribution gives a survey of results on conformal invariance, scaling limits and properties of some two-dimensional random curves. It provides a definition and properties of the Schramm-Loewner evolutions, computations (probabilities, critical exponents), the relation with critical exponents of planar Brownian motions, planar self-avoiding walks, critical percolation, loop-erased random walks and uniform spanning trees.

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