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| Descrizione fisica             | 1 online resource (xv, 284 pages) : digital, PDF file(s)   |
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| Disciplina                     | 621.39/80151922  |
| Soggetti                       | Wireless communication systems - Mathematics<br>Stochastic models  |
| Lingua di pubblicazione        | Inglese  |
| Formato                        | Materiale a stampa   |
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| Nota di contenuto              | <ul> <li>Machine generated contents note: Part I. Point Process Theory: 1.</li> <li>Introduction; 2. Description of point processes; 3. Point process<br/>models; 4. Sums and products over point processes; 5. Interference and<br/>outage in wireless networks; 6. Moment measures of point processes;</li> <li>7. Marked point processes; 8. Conditioning and Palm theory; Part II.</li> <li>Percolation, Connectivity and Coverage: 9. Introduction; 10. Bond and<br/>site percolation; 11. Random geometric graphs and continuum<br/>percolation; 12. Connectivity; 13. Coverage; Appendix: introduction to<br/>R.</li> </ul> |
| Sommario/riassunto             | Covering point process theory, random geometric graphs and coverage<br>processes, this rigorous introduction to stochastic geometry will enable<br>you to obtain powerful, general estimates and bounds of wireless<br>network performance and make good design choices for future wireless  |

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architectures and protocols that efficiently manage interference effects. Practical engineering applications are integrated with mathematical theory, with an understanding of probability the only prerequisite. At the same time, stochastic geometry is connected to percolation theory and the theory of random geometric graphs and accompanied by a brief introduction to the R statistical computing language. Combining theory and hands-on analytical techniques with practical examples and exercises, this is a comprehensive guide to the spatial stochastic models essential for modelling and analysis of wireless network performance.