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| Collana                 | Oxford scholarship online  |
| Altri autori (Persone)  | JaggerThomas H   |
| Disciplina              | 551.55/20285555  |
| Soggetti                | Hurricanes - Forecasting - Statistical methods<br>R (Computer program language)  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
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| Nota di contenuto       | Cover -- Contents -- Preface -- Part One: Data, Statistics, and Software -- 1. Hurricanes, Climate, and Statistics -- 1.1. Hurricanes -- 1.2. Climate -- 1.3. Statistics -- 1.4. R -- 1.5. Organization -- 2. R Tutorial -- 2.1. Introduction -- 2.2. Data -- 2.3. Tables and Plots -- 3. Classical Statistics -- 3.1. Descriptive Statistics -- 3.2. Probability and Distributions -- 3.3. One-Sample Test -- 3.4. Wilcoxon Signed-Rank Test -- 3.5. Two-Sample Test -- 3.6. Statistical Formula -- 3.7. Two-Sample Wilcoxon Test -- 3.8. Compare Variances -- 3.9. Correlation -- 3.10. Linear Regression -- 3.11. Multiple Linear Regression -- 4. Bayesian Statistics -- 4.1. Learning about the Proportion of Landfalls -- 4.2. Inference -- 4.3. Credible Interval -- 4.4. Predictive Density -- 4.5. Is Bayes's Rule Needed? -- 4.6. Bayesian Computation -- 5. Graphs and Maps -- 5.1. Graphs -- 5.2. Time Series -- 5.3. Maps -- 5.4. Coordinate Reference Systems -- 5.5. Export -- 5.6. Other Graphic Packages -- 6. Data Sets -- 6.1. Best-Tracks Data -- 6.2. Annual Aggregation -- 6.3. Coastal County Winds -- 6.4. NetCDF Files -- Part Two: Models and Methods -- 7. Frequency Models -- 7.1. Counts -- 7.2. Environmental Variables -- 7.3. Bivariate Relationships -- 7.4. Poisson Regression -- 7.5. Model Predictions -- 7.6. Forecast Skill -- 7.7. Nonlinear Regression Structure -- 7.8. Zero-Inflated Count Model |

-- 7.9. Machine Learning -- 7.10. Logistic Regression -- 8. Intensity Models -- 8.1. Lifetime Highest Intensity -- 8.2. Fastest Hurricane Winds -- 8.3. Categorical Wind Speeds by County -- 9. Spatial Models -- 9.1. Track Hexagons -- 9.2. SST Data -- 9.3. SST and Intensity -- 9.4. Spatial Autocorrelation -- 9.5. Spatial Regression Models -- 9.6. Spatial Interpolation -- 10. Time Series Models -- 10.1. Time Series Overlays -- 10.2. Discrete Time Series -- 10.3. Change Points. 10.4. Continuous Time Series -- 10.5. Time-Series Network -- 11. Cluster Models -- 11.1. Time Clusters -- 11.2. Spatial Clusters -- 11.3. Feature Clusters -- 12. Bayesian Models -- 12.1. Long-Range Outlook -- 12.2. Seasonal Model -- 12.3. Consensus Model -- 12.4. Space-Time Model -- 13. Impact Models -- 13.1. Extreme Losses -- 13.2. Future Wind Damage -- Appendix A. R Functions -- Appendix B. R Packages -- Appendix C. Data sets -- Bibliography -- Index -- A -- B -- C -- D -- E -- F -- G -- H -- I -- J -- K -- L -- M -- N -- O -- P -- Q -- R -- S -- T -- V -- W -- Z.

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Sommario/riassunto

'Hurricane Climatology' explains how to analyze and model hurricane data to better understand and predict present and future hurricane activity.

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