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Titolo	Bayesian nonparametrics / / edited by Nils Lid Hjort [and others] [[electronic resource]]
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Descrizione fisica	1 online resource (viii, 299 pages) : digital, PDF file(s)
Collana	Cambridge series on statistical and probabilistic mathematics ; ; 28
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Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	An invitation to Bayesian nonparametrics / Nils Lid Hjort, Chris Holmes, Peter Muller and Stephen G. Walker -- 1. Bayesian nonparametric methods: motivation and ideas / Stephen G. Walker -- 2. The Dirichlet process, related priors, and posterior asymptotics / Subhashis Ghosal -- 3. Models beyond the Dirichlet process / Antonio Lijoi and Igor Prunster -- 4. Further models and applications / Nils Lid Hjort -- 5. Hierarchical Bayesian nonparametric models with applications / Yee Whye Teh and Michael I. Jordan -- 6. Computational issues arising in Bayesian nonparametric hierarchical models / Jim Griffin and Chris Holmes -- 7. Nonparametric Bayes applications to biostatistics / David B. Dunson -- 8. More nonparametric Bayesian models for biostatistics / Peter Muller and Fernando Quintana -- Author index -- Subject index.
Sommario/riassunto	Bayesian nonparametrics works - theoretically, computationally. The

theory provides highly flexible models whose complexity grows appropriately with the amount of data. Computational issues, though challenging, are no longer intractable. All that is needed is an entry point: this intelligent book is the perfect guide to what can seem a forbidding landscape. Tutorial chapters by Ghosal, Lijoi and Prunster, Teh and Jordan, and Dunson advance from theory, to basic models and hierarchical modeling, to applications and implementation, particularly in computer science and biostatistics. These are complemented by companion chapters by the editors and Griffin and Quintana, providing additional models, examining computational issues, identifying future growth areas, and giving links to related topics. This coherent text gives ready access both to underlying principles and to state-of-the-art practice. Specific examples are drawn from information retrieval, NLP, machine vision, computational biology, biostatistics, and bioinformatics.