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   Soggetti   Distribution (Probability theory)
                       Dirichlet problem

   Lingua di pubblicazione   Inglese

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   Note generali   Description based upon print version of record.

   Nota di bibliografia   Includes bibliographical references and indexes.

   Nota di contenuto   Dirichlet and Related Distributions: Theory, Methods and Applications;
                       Contents; Preface; Acknowledgments; List of abbreviations; List of
                       symbols; List of figures; List of tables; 1 Introduction; 1.1 Motivating
                       examples; 1.2 Stochastic representation and the d= operator; 1.2.1
                       Definition of stochastic representation; 1.2.2 More properties on the d
                       = operator; 1.3 Beta and inverted beta distributions; 1.4 Some useful
                       identities and integral formulae; 1.4.1 Partial-fraction expansion; 1.4.2
                       Cambanis-Keener-Simons integral formulae; 1.4.3 Hermite-Genocchi
                       integral formula
                       1.5 The Newton-Raphson algorithm1.6 Likelihood in missing-data
                       problems; 1.6.1 Missing-data mechanism; 1.6.2 The expectation-
                       maximization (EM) algorithm; 1.6.3 The expectation/conditional
                       maximization (ECM) algorithm; 1.6.4 The EM gradient algorithm; 1.7
                       Bayesian MDPs and inversion of Bayes' formula; 1.7.1 The data
                       augmentation (DA) algorithm; 1.7.2 True nature of Bayesian MDP:
                       inversion of Bayes' formula; 1.7.3 Explicit solution to the DA integral

| Sommario/riassunto | The Dirichlet distribution appears in many areas of application, which include modelling of compositional data, Bayesian analysis, statistical genetics, and nonparametric inference. This book provides a comprehensive review of the Dirichlet distribution and two extended versions, the Grouped Dirichlet Distribution (GDD) and the Nested Dirichlet Distribution (NDD), arising from likelihood and Bayesian analysis of incomplete categorical data and survey data with non-response. The theoretical properties and applications are also reviewed in detail for other related distributions, such as the in |