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Titolo	Mixtures [[electronic resource]] : estimation and applications / / edited by Kerrie L. Mengersen, Christian P. Robert, D. Michael Titterington
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Collana	Wiley series in probability and statistics
Altri autori (Persone)	MengersenKerrie L RobertChristian P. <1961-> TitteringtonD. M
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Nota di contenuto	Mixtures: Estimation and Applications; Contents; Preface; Acknowledgements; List of contributors; 1 The EM algorithm, variational approximations and expectation propagation for mixtures; 1.1 Preamble; 1.2 The EM algorithm; 1.2.1 Introduction to the algorithm; 1.2.2 The E-step and the M-step for the mixing weights; 1.2.3 The M-step for mixtures of univariate Gaussian distributions; 1.2.4 M-step for mixtures of regular exponential family distributions formulated in terms of the natural parameters; 1.2.5 Application to other mixtures; 1.2.6 EM as a double expectation 1.3 Variational approximations1.3.1 Preamble; 1.3.2 Introduction to variational approximations; 1.3.3 Application of variational Bayes to mixture problems; 1.3.4 Application to other mixture problems; 1.3.5 Recursive variational approximations; 1.3.6 Asymptotic results; 1.4 Expectation-propagation; 1.4.1 Introduction; 1.4.2 Overview of the recursive approach to be adopted; 1.4.3 Finite Gaussian mixtures with an unknown mean parameter; 1.4.4 Mixture of two known

Sommario/riassunto

This book uses the EM (expectation maximization) algorithm to simultaneously estimate the missing data and unknown parameter(s) associated with a data set. The parameters describe the component distributions of the mixture; the distributions may be continuous or discrete. The editors provide a complete account of the applications, mathematical structure and statistical analysis of finite mixture distributions along with MCMC computational methods, together with a range of detailed discussions covering the applications of the methods and features chapters from the leading experts on the subje