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|  | **Italiano** | **English** |
| **Docente/Instructor**  | L. Scrucca | L. Scrucca |
| **Titolo/Title**  | Modelli mistura per il clustering la classificazione | Mixture models for model-based clustering and classification |
| **Contenuti/Contents** | * Modelli di misture finite
* Modelli mistura Gaussiani
* Modelli per la cluster analisi basati sulla distribuzione Gaussiana multivariata
* Algoritmo EM
* Selezione del modello
* Stima di densità tramite modelli mistura Gaussiani
* Classificazione tramite modelli mistura Gaussiani
* Il pacchetto mclust per R
 | * Finite mixture models
* Gaussian Mixture Models
* Model-based clustering based on multivariate Gaussian distribution
* EM algorithm
* Model selection
* Density estimation via finite mixture modeling
* Classification using Gaussian mixture models
* The R package mclust

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| **Testi/Reading list** | Fraley C., Raftery A. E. (2002). *Model-based clustering, discriminant analysis, and density estimation*. JASA, 97(458), 611–631.Fraley C., Raftery A. E., Murphy T. B., Scrucca L. (2012). *MCLUST Version 4 for R: Normal Mixture Modeling for Model-Based Clustering, Classification, and Density Estimation*. Tech. Rep. 597, Department of Statistics, University of Washington.McLachlan G., Peel D. (2000). *Finite Mixture Models*. New York: Wiley.  | Fraley C., Raftery A. E. (2002). *Model-based clustering, discriminant analysis, and density estimation*. JASA, 97(458), 611–631.Fraley C., Raftery A. E., Murphy T. B., Scrucca L. (2012). *MCLUST Version 4 for R: Normal Mixture Modeling for Model-Based Clustering, Classification, and Density Estimation*. Tech. Rep. 597, Department of Statistics, University of Washington.McLachlan G., Peel D. (2000). *Finite Mixture Models*. New York: Wiley. |
| **Mese/Month\*:**  |  |  |
| **Curriculum** |  |  |

\*Indicare le possibili settimane di insegnamento