



University of Pretoria Yearbook 2019

Mathematical foundations of data science 806 (NEP 806)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	15.00
Programmes	MSc eScience (Coursework)
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 1 or Semester 2

Module content

High-dimensional space, best-fit subspaces and singular value decomposition, random walks and Markov chains, statistical machine learning, clustering, random graphs, topic models, matrix factorisation, hidden Markov models, graphical models, wavelets, and sparse representations.

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