

University of Pretoria Yearbook 2016

Mathematical morphology 820 (WTW 820)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	30.00
Prerequisites	Measure Theory and Functional Analysis on honours level
Contact time	1 lecture per week
Language of tuition	English
Academic organisation	Mathematics and Applied Maths
Period of presentation	Semester 1

Module content

Mathematical morphology – a theory for the analysis of special structures and a powerful methodology for the extraction of useful information from images. Morphological operators and their properties: erosion, dilation, opening, closing, granulometries. Applications to noise removal, filtering, extraction of features, edge detection, etc. LULU operators - properties and applications. Partial differential equations for morphological operators.

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