Title:

Registration of functions - applications to colour transfer and pattern recognition

Abstract:

Functional data analysis (FDA) proposes to represent data with functions as an alternative to finite dimensional variables and vectors. This talk is addressing the important step of registration of functions in FDA, and its application to colour transfer and pattern analysis.

In particular we focus on nonparametric probability density functions often used for capturing colour information, but also shapes in images.

References

- Robust Ellipse Detection With Gaussian Mixture Models
- C. Arellano et al, Pattern Recognition (2016).

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- Automated Colour Grading using Colour Distribution Transfer
- F. Pitie et al., Computer Vision and Image Understanding (2007).

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- L2 Registration for Colour Transfer
- M. Grogan et al, Eusipco (2015), ISBN 978-0-9928626-4-0