Institut de Matemàtica

de la Universitat de Barcelona

MINI COURSE:

INTRODUCTION TO EMBEDDING THEORY

Prof. Viktor Kolyada

Karlstad University

The course represents a short introduction to the Theory of Embeddings of Spaces of Functions. Its main contents are the following topics:

- Moduli of continuity. Besov spaces.
- Sobolev spaces.
- Rearrangements. Estimates of rearrangements in terms of moduli of continuity and in terms of derivatives.
- Smoothness of rearrangements.
- Sobolev type inequalities. Limiting embeddings.
- Embeddings into the space C. Estimates of moduli of continuity.
- Embeddings of classes with given majorants of moduli of continuity. Lipschitz classes.
- Gagliardo's inequality. Mixed norm spaces.
- Trace theorems.

Dates: Monday 5, Wednesday 7 and Friday 9, November (2012)

Time: 12:00 - 14:00.

Where: IMUB's lecture room.

Students taking this course will receive a certificate of attendance.