SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS

Dia 11 de maio (quinta-feira), às 13h30, sala 6.2.33

Degree theory for discontinuous operators with applications to Ordinary Differential Equations

Rubén Figueroa

(Universidade de Santiago de Compostela)

Abstract: The classical Leray-Schauder's degree is a very powerful tool in order to guarantee the existence of fixed points for suitable continuous operators in Banach spaces. As well-known, the solutions of a large class of boundary value problems can be written in terms of fixed points of continuous operators and so degree theory becomes very useful to deal with this kind of problems. However, Leray-Schauder's degree and the classical fixed point theorems fail when the corresponding mapping is discontinuous. In this talk we will develop a new degree theory for a certain class of operators that need not be continuous and we will show how this can be applied to Ordinary Differential Equations with discontinuous nonlinearities.

Local: FCUL – Edf. C6 - Piso 2, 6.2.33

FCT Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR