CMUP
Centro de **Matemática**
Universidade do Porto

Dynamical Systems Seminar

Date. November 23, 14h30

Place. Room M031

Speaker. António Bento (Universidade da Beira Interior)

Title. Nonuniform dichotomic behavior for nonautonomous difference equations

Abstract. For nonautonomous linear difference equations in a Banach space and admitting a very general type of dichotomy, we show:

i) the existence of global invariant manifolds for small Lipschitz perturbations of the linear equation;

ii) the existence of local invariant manifolds for locally Lipschitz perturbations of the linear equation;

iii) the persistence of the dichotomic behavior under small linear perturbations exactly with the same growth rates.

In the particular case of (μ, ν)-dichotomies, nonuniform exponential dichotomies and nonuniform polynomial dichotomies our results are new or improve previous known results.

This talk is based on joint work with C.M. Silva.

Remark. Coffee with the speaker is served after the talk (15h30 - 16h00)