

SEMINARIO IMAC DE ANÁLISIS



Conferencia a cargo de Mahmoud Filali *Universidad de Oulu (Finlandia)*

On Pym's and Veech's Theorems

ABSTRACT: Veech's theorem was first proved in 1977 in the context of Topological Dynamics, and turned out to be an essential tool for the theory of semigroup compactifications, particularly the *LUC*-compactification. For discrete G , it can be obtained as a direct consequence of a set theoretic partition Lemma called the *Three Sets Lemma*, already used by Ellis in 1960.

Pym's Local Structure Theorem on the *LUC*-compactification was first proved in 1999, its first application (and probably its original motivation) was towards a simplified proof of Veech's Theorem. This proof consisted in a combination of the Local Structure Theorem with the Three Sets Lemma. Its significance however goes far beyond this application, as it bridges the discrete and locally compact cases in quite a precise way.

Our objective is to obtain general versions of both Veech's Theorem and Pym's Local Structure Theorem. And more! We find that beneath both theorems lies a common structure, that of interpolation sets.

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Lugar: **IMAC** (Seminario TI1329SD), ESTCE. Universitat Jaume I de Castelló