ICMAT
INSTITUTO DE CIENCIAS MATEMÁTICAS

Thematic Research Programme:
OPERATOR ALGEBRAS, GROUPS AND APPLICATIONS TO QUANTUM INFORMATION

ICMAT (Madrid, Spain)
March 11 - June 29, 2019

RUNNING SEMINARS

March 28, 2019

Separated graphs and dynamics

SPEAKER: Pere Ara (Universitat Autónoma de Barcelona)

VENUE: Aula Gris 1, ICMAT // 11:30 - 12:15

ABSTRACT: A separated graph is a pair (E, C), where E is a directed graph, $C = \bigsqcup_{v \in E^0} C_v$, and C_v is a partition of $r^{-1}(v)$ (into pairwise disjoint nonempty subsets) for every vertex v. In recent years, separated graphs have been used to provide combinatorial models of several structures, often related to dynamical systems. This can be understood as a generalization of the common use of usual directed graphs in symbolic dynamics. I will survey some of these developments, including the failure of Tarski's dichotomy in the setting of topological actions [3], the construction of a family of ample groupoids with prescribed type semigroup [1] , and the modeling of actions on the Cantor set [2].

The beauty of the Cuntz semigroup

SPEAKER: Francesc Perera (UAB)

VENUE: Aula Gris 1, ICMAT // 12:15 - 13:00

ABSTRACT: We will review the main construction of this object. We shall also dwell on its main categorical features, as well as recent connections with C*-algebras of stable rank one and dynamical systems (time permitting).

Organizing committee:

Cécilia Lancien (U. Toulouse)
Fernando Lledó (UC3M-ICMAT)
Diego Martínez (UC3M-ICMAT)
Carlos Palazuelos (UCM-ICMAT)
Julio de Vicente (UC3M)

Scientific committee:

Pere Ara (Universitat Autònoma de Barcelona, Spain)
Marius Junge (University of Illinois at Urbana-Champaign, USA)
David Kerr (Texas A&M University, College Station, USA)
Fernando Lledó (Universidad Carlos III de Madrid and ICMAT, Spain)
Francesc Perera (Universitat Autònoma de Barcelona, Spain)
Andreas Winter (Universitat Autònoma de Barcelona, Spain)
Mikael Rørdam (University of Copenhagen, Denmark)

More information: https://www.icmat.es/RT/2019/OAGAQI/index.php
Contact: oagaqi@icmat.es

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES · CSIC Consejo Superior de Investigaciones Científicas · EXCELENCIA SEVERO OCHOA · uc3m Universidad Carlos III de Madrid Departamento de Matemáticas · UAM Universidad Autónoma de Madrid · NSF · Universidad Complutense Madrid