



## dr. Ismael González Yero

### Seminars:

#### **Packings and open packings on some product graphs**

Thursday 21.02.19, 14:15, room 418 GB

#### **Basic topics on metric dimension in graphs**

Friday 22.02.19, 11:15, room 121 GG

### Consulting hours:

Thursday 21.02.19 12:00-14:00, room 516a GB

Friday 22.02.19, 9:00-11:00, room 516a GB

Faculty of Applied Physics and Mathematics invites all Students, Staff and Guests to the classes and consultations with dr. Ismael González Yero from [Department of Mathematics](#) of Universidad de Cádiz in Spain. Dr Yero is visiting us within the frame of the Erasmus+ programme.

Research interests of dr. González Yero are: Applied and Discrete Mathematics, Graph Theory and Combinatorics.

Publications:

[https://dblp.org/pers/hd/y/Yero:Ismael\\_Gonz=acute=lez](https://dblp.org/pers/hd/y/Yero:Ismael_Gonz=acute=lez)

[https://www.researchgate.net/profile/Ismael\\_Gonzalez\\_Yero](https://www.researchgate.net/profile/Ismael_Gonzalez_Yero)

Abstracts:

### 1) **Packings and open packings on some product graphs**

The packing number of a graph  $G$  is the maximum number of closed neighborhoods of vertices in  $G$  with pairwise empty intersections. Similarly, the open packing number of  $G$  is the maximum number of open neighborhoods in  $G$  with pairwise empty intersections. The packing and open packing numbers on graph products will be considered in this seminar. In particular, a complete solution with respect to some properties of factors in the case of lexicographic and rooted products will be presented. For Cartesian, strong and direct products,

several lower and upper bounds on these parameters will be described.

## 2) **Basic topics on metric dimension in graphs**

Given a graph  $G$ , a set  $S$  of vertices of  $G$  is a metric generator for  $G$  if any two vertices of  $G$  are distinguished by  $S$  throughout vectors of distances to elements in  $S$ . A metric generator with the smallest possible cardinality is a metric basis of  $G$  and its cardinality the metric dimension of  $G$ . Several introductory results on metric dimension in graphs will be presented in this talk.