

# CONFERENCIA



## **Umberto Martínez-Peñas**

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### ***Private Information Retrieval from Locally Repairable Databases with Colluding Servers***

**Abstract:** Se organiza esta conferencia con motivo del premio de Investigación Matemática Vicent Caselles 2019 (Real Sociedad Matemática Española y Fundación BBVA) que recibe esta semana Umberto Martínez-Peñas, egresado del grado y máster de Matemáticas de la Universidad de Valladolid.

"Private information retrieval (PIR) consists in retrieving a file from a database without revealing the index of the retrieved file to the servers. Originally, databases were considered to store files using a repetition code, that is, each server stores one copy of each file, and servers were not considered to communicate with each other (collude) in order to gain information of the file index. In this talk, we will present a PIR scheme to retrieve a file from a database where certain number of servers may collude and the data is encoded using a Maximally Recoverable (MR) Locally Repairable Code (LRC), which we also present in this talk."

**Salon de Grados I  
Miércoles 2 de Octubre de 2019 (17:00)  
Organiza: IMUVA**

