

# SEMINARIO DE ANÁLISIS Y APLICACIONES

Jueves, 11 de junio de 2020

18:00 h., ONLINE - URL: <https://conecta.csic.es/b/jos-ajp-qp4>

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Sharp bounds for maximal operators on  
finite graphs

## Resumen:

In this talk we will discuss the regularity properties of the Hardy-Littlewood maximal operator on finite graphs, this was originally studied by Soria and Trudete in 2014, they obtained some optimal bounds for  $0 < p \leq 1$ . Recently, in a joint work with Gonzalez-Riquelme we obtained some optimal results for  $p = 2$ . Moreover we obtained some optimal results for the  $p$ -variation of the maximal operator for  $p \geq 1/2$  in the case of the star graph and for  $p > \ln 4 / \ln 6$  in the case of the complete graph. We will also discuss what are the extremizers in the situations described, and some interesting open questions.

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