

Thursday, November 14th, 12.00-13.00
Seminar Room at the Mathematics Department of UPV/EHU

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MAXIMAL OPERATORS FOR CUBE SKELETONS

There are many problems arising from geometry than can be treated from harmonic analysis. For example, problems about the size of sets containing certain geometric configurations are related to the boundedness of maximal operators. In this talk, we will present a discretized maximal operator associated to averaging over (neighborhoods of) squares in the plane and, more generally, k -skeletons in \mathbb{R}^n . These results are motivated by, and partially extend, recent results on sets that contain a scaled k -skeleton of the unit cube with center in every point of \mathbb{R}^n .