1127-42-356 **José Manuel Conde Alonso*** (jconde@mat.uab.cat), Departament de Matèmatiques, Facultat de Ciències, Universitat Autònoma de Barcelona, 08193 Cerdanyola, Barcelona, Spain. *A sparse domination principle for rough (and non-rough) singular integrals.*

In this talk, we will show that bilinear forms associated to dyadic shifts, or to the rough homogeneous singular integrals

$$T_\Omega f(x) = \text{p.v.} \int_{\mathbb{R}^d} f(x-y)\Omega\left(\tfrac{y}{|y|}\right)\frac{dy}{|y|^d}$$

where $\Omega \in L^q(S^{d-1})$ has vanishing average and $1 < q \leq \infty$, and to Bochner-Riesz means at the critical index in $\mathbb{R}^d$ are dominated by sparse forms involving $(1,p)$ averages. This domination is stronger than the weak-L^1 estimates for T_Ω and for Bochner-Riesz means, respectively due to Seeger and Christ. Our domination theorems imply new sharp quantitative A_p-weighted estimates for Bochner-Riesz means and for homogeneous singular integrals with unbounded angular part. Our results follow from a new abstract sparse domination principle which does not rely on weak endpoint estimates for maximal truncations.

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