
CLAUDIO MACHADO VASCONCELOS, Universidade Federal de São Carlos
On the continuity of Calderón-Zygmund-type operators on Hardy spaces

In this talk, we will discuss some boundedness results for strongly singular Calderón-Zygmund operators on Hardy spaces $H^p(\mathbb{R}^n)$ and its local version $h^p(\mathbb{R}^n)$ for $0 < p \leq 1$. Operators of this type are generalizations of *weakly-strongly multipliers* and include appropriate classes of pseudodifferential operators in the Hörmander class. In particular, we assume some L^s -type integral estimates on their kernel and present some interesting molecular decomposition of $h^p(\mathbb{R}^n)$, in which a weaker cancellation condition is assumed.

This is joint work with Tiago Picon (University of São Paulo), Galia Dafni and Chun Ho Lau (Concordia University).