

Sessão temática - Análise Harmônica e Aplicações

Weighted inequalities and dyadic harmonic analysis

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Resumo/Abstract: In this talk we survey the fruitful interplay between dyadic techniques and weighted inequalities. This interplay has led to (i) the solution of the A_2 conjecture by Hytönen and the long-standing two-weight problem for the Hilbert transform by Lacey, Sawyer, Shen, and Uriarte-Tuero, (ii) the discovery of representation formulas for Calderón-Zygmund singular integral operators as averages of dyadic shift operators and paraproducts, and (iii) the wide use of sparse dyadic operators to obtain point wise control of all sort of operators well beyond the Calderón-Zygmund class.