

Generalized $T(1)$ theorems

Lucas Oliveira

Universidade Federal do Rio Grande do Sul

In 1984, Guy David e Jean-Lin Journé have published their famous $T(1)$ *theorem*. In this talk we will discuss what this theorem is, its main applications, and the possible directions for possible extensions. In particular, we will discuss some results that were obtained in collaboration with Jarod Hart and Lucas Chaffee over the last 3 years.

References

- [1] LUCAS CHAFFEE, JAROD HART AND LUCAS OLIVEIRA, *Analysis of hyper-singular, fractional, and order-zero singular integral operators*, Indiana University Mathematics Journal, to appear
- [2] JAROD HART AND LUCAS OLIVEIRA, *Hardy space estimates for limited ranges of Muckenhoupt weights*, Advances in Mathematics, v. 313, p. 803-838, 2017
- [3] LUCAS CHAFFEE, JAROD HART AND LUCAS OLIVEIRA, *Sobolev-BMO and fractional integrals on super-critical ranges of Lebesgue spaces*, Journal of Functional Analysis, v. 272, p. 631-660, 2017.