Cornell University Library

We gratefully acknowledge support from the Simons Foundation and member institutions

arXiv.org > math > arXiv:1206.0907

Search or Article-id

(Help | Advanced search)

All papers    Go!

**Mathematics > Classical Analysis and ODEs**

# The local Tb theorem with rough test functions

Tuomas Hytönen, Fedor Nazarov

*(Submitted on 5 Jun 2012)*

We prove a version of the local Tb theorem under minimal integrability assumptions, answering a question of S. Hofmann (El Escorial, 2008): Every cube is assumed to support two non-degenerate functions b^1_Q\in L^p and b^2_Q\in L^q such that Tb^1_Q\in L^{q'} and T^*b^2_Q\in L^{p'}, with appropriate uniformity and scaling of the norms. This is sufficient for the L^2-boundedness of the Calderon-Zygmund operator T, for any p,q\in(1,\infty), a result previously unknown for simultaneously small values of p and q. The proof is based on the technique of suppressed operators from the quantitative Vitushkin conjecture due to Nazarov-Treil-Volberg.

*Which authors of this paper are endorsers?*

**Download:**

- PDF
- PostScript
- Other formats

Current browse context:

**math.CA**

**< prev** | **next >**

new | recent | 1206

Change to browse by:

math

References & Citations

- NASA ADS

**Bookmark**(what is this?)