

# TEMPLE UNIVERSITY

Department of Mathematics

## Analysis Seminar

Zoom meeting

Monday, March 29 2021, 2:30 p.m.

*On the global Gevrey vectors*

by Gustavo Hoepfner

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Abstract: We introduce the notion of global  $L^q$  Gevrey vectors and investigate the regularity of such vectors in global and microglobal settings. We characterize the vectors in terms of the FBI transform and prove global and microglobal versions of the Kotake-Narasimhan Theorem. As a consequence we provided a refinement of an earlier result by Hoepfner and Raich relating the microglobal wavefront sets of the ultradistributions  $u$  and  $Pu$  when  $P$  is a constant coefficient differential operator. This is a joint work with A. Raich and P. Rampazzo.