

Global Gevrey functions and vectors

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There are different ways to define ultradifferentiable functions, in this lecture, some of these ways will be introduced focusing on spaces that we call “global”, also we will analyze the dual spaces whose elements are known as ultradistributions. We will present the global Gevrey vectors, their characterization in terms of the FBI transform and global and microglobal versions of the Kotake-Narasimhan Theorem, which allow a refined analysis of the wavefront sets of an ultradistribution u and Pu when P is an operator differential with constant coefficients. Results usually discussed in better-known classes will be presented, but current, as they were obtained for new classes of functions.