

An ultradifferentiable reflection principle

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In my talk I will present a reflection principle for mappings between finitely nondegenerate, generic, ultradifferentiable manifolds. Here, an ultradifferentiable manifold is a smooth manifold whose defining function belongs to some Denjoy-Carleman class $\mathcal{E}_{\mathcal{M}}$ that is determined by a weight sequence \mathcal{M} . The methods used in the proof are based on the ultradifferentiable wavefront set as defined by Hörmander and the almost-analytic extension of functions in $\mathcal{E}_{\mathcal{M}}$ given by Dynkin. Furthermore, if time permits, I will point out how these methods can be used to generalize a joint work with B. Lamel concerning the smooth regularity of infinitesimal CR automorphisms to the ultradifferentiable category.