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# Intersections of non quasi-analytic classes of ultradifferentiable functions

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## Abstract

As in [8] and [9], we define the intersections  $\mathcal{E}_{(\mathfrak{M})}(\Omega)$ ,  $\mathcal{D}_{(\mathfrak{M})}(K)$  and  $\mathcal{D}_{(\mathfrak{M})}(\Omega)$  of non quasi-analytic classes by means of a matrix  $\mathfrak{M}$ . We prove that they differ from classical Beurling classes and that they coincide algebraically with the corresponding intersections of Roumieu classes. We next consider a few elementary properties and give a condition on  $\mathfrak{M}$  under which these spaces are nuclear.

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**Key words:** ultradifferentiable functions, Beurling classes, nuclearity.