Extension operators for some ultraholomorphic classes defined by sequences of rapid growth

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While the asymptotic Borel mapping, sending a function into its series of asymptotic expansion in a sector, is known to be surjective for arbitrary openings in the framework of ultraholomorphic classes associated with sequences of rapid growth, there is no general procedure to construct extension operators in this case. In this talk, we do show how to explicitly construct operators for classes defined by some particular sequences considered by S. Pilipović, N. Teofanov and F. Tomić in the ultradifferentiable setting. Although these classes are, in their words, "beyond Gevrey regularity", in some cases the sequences keep the property of stability under differentiation, which is crucial for our technique, based on formal Borel- and truncated Laplace-like transforms with suitable kernels.