

# The structure of asymptotic extensions and applications

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In this work we review the general structure of asymptotic extensions, of which Colombeau type algebras are a special case of. The abstraction allows to see more clearly the fundamental relations and to apply the powerful tools of sheaf theory in order to easily obtain results which usually require heavy calculations. Applications include the definition of different notions of singular spectra and the study of the propagation of singularities.

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