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Bogoliubov Type Recursions for Renormalisation in Regularity Structures

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Hairer's regularity structures transformed the solution theory of singular stochastic partial differential equations. The notions of positive and negative renormalisation are central and the intricate interplay between these two renormalisation procedures is captured through the combination of cointeracting bialgebras and an algebraic Birkhoff-type decomposition of bialgebra morphisms. We will revisit the latter by defining Bogoliubov-type recursions similar to Connes and Kreimer's formulation of BPHZ renormalisation. This is a joint work with Kurusch Ebrahimi-Fard.

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