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Renormalization Group flow

Almost two decades ago, Renormalization Group flow defined by the smooth Feshbach-Schur map was shown by V. Bach, Chen, Fröhlich, and Sigal to possess a codimension-one contractivity property. This contractivity insures that the iterative application of R_ρ (the Renormalization Transformation depends on a scaling parameter ρ) generates a (time-discrete) dynamical system on D (small ball of Banach space of operators, that is the domain of definition of the RG map) with a fixed point manifold of dimension one. Now we improved scheme that is (fully) contracting and has no marginal directions anymore. This allows for characterizing the properties on the fixed point much more precisely. This is joint work with V. Bach.