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## Spectral functions of the ${\cal O}(N)$ model from the functional renormalization group approach

We will discuss the computation of spectral functions of bound states using the real-time formulation of a functional renormalization group (FRG) approach on the example of the O(4) model. The computation is based on the Kallen-Lehmann spectral representation of dressed propagators used in the Wetterich equation – the flow equation of the effective action. We consider an approximation of momentum-independent vertices, the so called propagator approximation. Such an approach gives analytic access to the emergent singularities and brunch cuts, which opens the way for the numerical solution of a system of the FRG equations for the spectral functions corresponding to dressed retarded propagators.

**Author:** Dr LEBEDEV, Nikita (N.N. Bogoliubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research)

Co-author: KALAGOV, Georgii (BLTP JINR)

**Presenter:** Dr LEBEDEV, Nikita (N.N. Bogoliubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research)