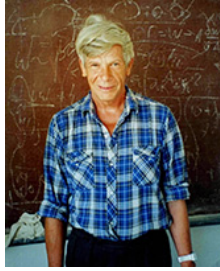


VII International Conference “Models in Quantum Field Theory”
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Conformal Triangles and Zig-Zag Diagrams

Friday, 14 October 2022 11:15 (45 minutes)

A convenient integral representation for zig-zag four-point and two-point planar Feynman diagrams relevant to the bi-scalar D -dimensional fishnet field theory is obtained. This representation gives a possibility to evaluate exactly diagrams of the zig-zag series in special cases. In particular, we give a fairly simple proof of the Broadhurst-Kreimer conjecture about the values of zig-zag multi-loop two-point diagrams which make a significant contribution to the renormalization group beta-function in 4-dimensional ϕ^4 theory.

Primary author: ISAEV, Alexey (BLTP, JINR)

Presenter: ISAEV, Alexey (BLTP, JINR)

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