DESY THEORY WORKSHOP
26 - 29 September 2017

Fundamental physics in the cosmos:
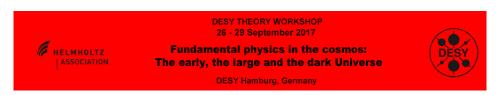**The early, the large and the dark Universe**

DESY Hamburg, Germany

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Yangian Symmetry of Fishnet Feynman Graphs

Wednesday 27 September 2017 17:25 (20 minutes)

We consider an all-loop conformal Yangian symmetry of
four-dimensional fishnet Feynman integrals being built from four-valent
vertices which are connected via scalar massless propagators. We will
discuss the implications of the Yangian symmetry in terms of
differential equations for these graphs and also comment on their
relation to observables in an integrable bi-scalar field theory in four
dimensions. Finally, we will discuss generalizations to fishnet graphs
in three and in six dimensions.

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Session Classification: Parallel Session: String & Mathematical Physics

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