Contribution ID: **69** Type: **not specified**

A non-perturbative study of the correlation functions of three-dimensional Yang-Mills theory

Monday, 7 March 2016 12:05 (30 minutes)

Functional equations like the functional renormalization group, Dyson-Schwinger equations or n-PI methods are useful tools which provide insight into the non-perturbative regime of quantum field theories. The basic objects are Green functions which can be calculated non-perturbatively. However, while the underlying equations are exact, approximations have to be introduced for the actual calculations. I will discuss the effects of such approximations in the case of three-dimensional Yang-Mills theory using the 3PI effective action and Dyson-Schwinger equations. As a consequence of the UV finiteness of this theory, some technical ambiguities of the four-dimensional theory are absent and only pure truncation artifacts are observed.

Primary author: HUBER, Markus (University of Graz)

Presenter: HUBER, Markus (University of Graz)

Session Classification: Monday Morning