## Theory challenges for LHC physics



Contribution ID: 56 Type: not specified

## Reducing differential equations for multiloop integrals to epsilon form

Friday 24 July 2015 15:00 (30 minutes)

Recently a remarkable observation was made concerning differential equation system for multiloop integrals. It appeared that in many cases by the proper choice of functions the differential system can be represented in the form where the dependence on regularization parameter is reduced to an overall factor  $\epsilon$  in the right-hand side. Such a representation makes finding general solution of the system almost trivial. We present a systematic algorithm to find the  $\epsilon$ -form.

Author: LEE, Roman (Budker Institute of Nuclear Physics)

Presenter: LEE, Roman (Budker Institute of Nuclear Physics)

Session Classification: CALC2015 Workshop