

PAUL SCHERRER INSTITUT



# Particle Theory Seminar

**G. Cullen**

*DESY - Zeuthen*

“Automated One-Loop Calculations with GoSam”

**Thursday, March 15, 2012, 11:30**

**WBGB/021**

**Abstract:**

A typical Next to Leading Order calculation for a multi-leg and multi-scale process can become very complex and its completion can be a long and arduous task. Such calculations are necessary to give a more precise prediction in perturbation theory therefore we aim for an automated approach to the problem. In recent years the bottleneck for achieving this goal has been the calculation of the virtual (one-loop) contribution. In this talk I will present the public program GoSam that allows the user to compute one-loop amplitudes in and beyond the Standard Model and show recent results using the program.