Higher Order SUSY Cross Sections and associated uncertainties

3	Anna Kulesza
4	Institut fr Theoretische Teilchenphysik und Kosmologie, RWTH Aachen, Germany
5	Michael Kraemer
6	Institut fr Theoretische Teilchenphysik und Kosmologie, RWTH Aachen, Germany
7	Sanjay Padhi
8	University of California, San Diego, USA
9	Tilman Plehn
10	Institut fr Theoretische Physik, Heidelberg, Germany
11	Xavier Portell
12	European Organization for Nuclear Research, CERN, Switzerland
13	Abstract
14	We summarize the state-of-art higher order cross section for several SUSY processes in the framework
15	of CMSSM as well as parton parton corrections for various SUSY sub-processes. The NLO+NLL
16	cross sections are provided for the production of squarks, gluinos, stops and sbottoms with respective
17	theoretical errors from scale and PDF choices. NLO corrections are used for electroweak processes

involving neutralinos, charginos, and sleptons the theory errors.

18

- 1 Introduction
- 2 Higher Order calculations NLO+NLL
- 3 Cross sections for SUSY colored particles
- 22 4 Theory uncertanities