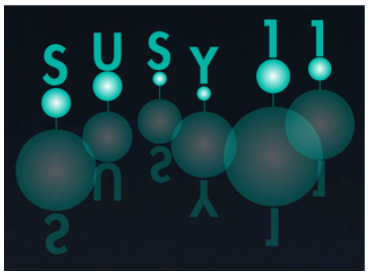

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SUSY fits: effects of LHC data (MasterCode collaboration)

Monday, 29 August 2011 14:30 (20 minutes)

We present the latest results of the MasterCode collaboration on global SUSY fits.

Currently available experimental data are used to determine the preferred SUSY and Higgs boson mass scales. The data comprise a combination of high-energy SUSY searches, low-energy precision measurements and astrophysical data. We include all relevant LHC searches for SUSY, electroweak precision observables such as the W boson mass and the anomalous magnetic moment of the muon, B physics observables such as BR(b -> s gamma), as well as the cold dark matter density in the Universe.

The preferred masses for SUSY particles as well as for the MSSM Higgs bosons are derived in the context of four GUT-based realizations of the MSSM.
We find a preference for relatively light SUSY masses, which the
direct searches at the LHC shift to slightly higher mass scales.

The preferred mass values can directly be compared to the reach of the LHC and future e+e- colliders as well as to current and future direct detection searches for dark matter.

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Session Classification: Parallel Session 4