Searches for

Supersymmetry

68 papers and 96 measurements

(numbers are up sharply)

Reviews

SUSY, part I (theory): ***H.E. Haber,*** **updated, Dec. 11**

SUSY, part II (experiment):

J.-F. Grivaz, **retired. New review: March 2012**

New Authors:

O. Buchmueller (Imperial College London) and
P. de Jong (Nikhef). (CMS and ATLAS)

Particle Listings

Encoders:

A. de Gouvea (theory),
K. Olive (astro),
Luc Pape ⟹ Filip Moortgat (ETH Zurich) (experiment)

Georg Weiglein (overseer): "The listings (in particular for SUSY) are so diverse that it is not easy to implement common standards for the comments: level of detail, notations, etc."

Particle Listings

Georg Weiglein (overseer) 2010: Encoding complexities:

"Digging into the details of each relevant paper, in general several times, at the encoding stage and when the verifiers send comments / suggestions,

"Trying to spot mistakes at the encoding stage and at the stage when Piotr compiles the listings. Since everything is done `by hand', mistakes can happen (and do happen) in every step,

"Trying to make the content of the listing and the comments appear in a coherent way in comparison to the listing of similar measurements in the past. For that it is often necessary to go back to older papers.

"Trying to identify papers that should be moved below the line or removed from the listing. The latter is rather straightforward for `main stream' Higgs and SUSY searches, but for less standard topics (2-Higgs doublet model, various SUSY searches) it is a nightmare to figure out precisely which of the old measurements are superseded by a new one. As a consequence, those sections blow up more and more, since new entries are added while only very rarely old ones are removed."

M. Barnett – October 2012

Summary Tables

Need to clearly state the relevant assumptions used in obtaining certain limits:

SUSY:

Benchmark scenario, . . .

Lightest neutralino (stable): gaugino mass unification at the GUT scale, . . .