

20+ years of collaboration and friendship

SLAC-PUB-10365

LES HOUCHES "PHYSICS AT TEV COLLIDERS 2003" BEYOND THE STANDARD MODEL WORKING GROUP: SUMMARY REPORT

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2005

Comparison of SUSY spectrum calculations and impact on the relic density constraints from WMAP

G. Bélanger¹, S. Kraml², A. Pukhov³

2006

Relic density of neutralino dark matter in the MSSM with CP violation

G. Bélanger¹, F. Boudjema¹, S. Kraml², A. Pukhov³, A. Semenov⁴



LES HOUCHES



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2011

Light Sneutrino Dark Matter at the LHC

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KEYWORDS

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Mixed sneutrino dark matter in light of the 2011 XENON and LHC results

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Abstract. In the context of supersymmetric models in which small Dirac neutrino masses are generated by supersymmetry breaking, a mainly right-handed (RH) mixed sneutrino can be an excellent cold dark matter (DM) candidate. We perform a global analysis of the Minimal Supersymmetric Standard Model (MSSM)+RH neutrino parameter space by means of Markov Chain Monte Carlo sampling. We include all relevant constraints from collider and dark matter searches, paying particular attention to nuclear and astrophysical uncertainties. Two distinct cases can satisfy all constraints: heavy sneutrino DM with mass of order 100 GeV, as well as light sneutrino DM with mass of about 3–6 GeV. We discuss the implications for direct and indirect dark matter searches, as well as for SUSY and Higgs searches at the LHC for both, the light and the heavy sneutrino dark matter case. The light sneutrino case is excluded by the 125–126 GeV Higgs signal.

Keywords:

Plus various work on collider implications for dark matter (still ongoing) ...

2012

ph] 24 Aug 2012

2.5694v3 [hep-ph] 13 Jun 2013

h] 2 Oct 2013

Two Higgs Bosons at the Tevatron and the LHC?

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Higgs Bosons at 98 and 125 GeV at LEP and the LHC

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Higgs Couplings at the End of 2012

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Status of invisible Higgs decays

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Global fit to Higgs signal strengths and couplings and implications for extended Higgs sectors

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2012-2013

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Beyond physics



July 2006
Pointe Percée, Arête du Doigt







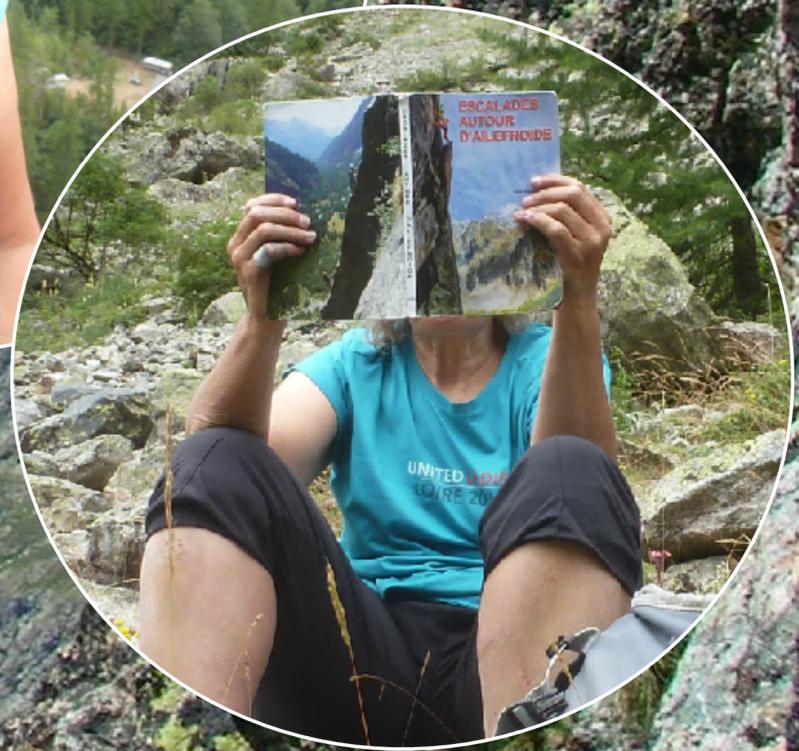


Aspen - 14,343 ft (4372 m)





Himalaya - Nepal



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Enjoy
and keep exploring

Thanks for all the fun with physics, climbing, skiing ,...
and most of all for your friendship.

