Here are my corrections to the 2001-01-27 version.

- 1st arrow page 1 : It is correct.
- 2nd arrow page 1 : We employ 2-loop RGE's for every running mass and coupling only in the M-SUGRA. The parenthesis should be corrected to "for some cases only at the one-loop for the running masses."
- 3rd arrow page 1 : "After transforming .." should be "After transforming the running $\overline{DR}$ parameters into.."
- 4th arrow page 1 : After the word scenario : "We also comment on the low energy spectrum in the models under consideration."
- Page 2 : A typo in "...broken Supergravity in *in the* flat.."
- 1st arrow Page 2 : correct
- 1st arrow Page 3 : correct
- footnote 3 : "This relation....positive" should be "This tree level relation is of not use here since we employ 1-loop corrections for the minimization conditions and we reject points where the 1-loop (or two-loop) Higgs masses squared are negative."
- In your comment "correct?" : The phrase "(extracted from ..pole masses)" should be "extracted from their pole masses which are treated as inputs." Regarding also Shufang's comment : we should put after the word RGE's [41] (for five flavours since the top quark mass has been decoupled) to derive...."
- Especially to Shufang : In Ref.[53] there is also another paper by the same group :

  Z. Chacko, M. A. Luty, E. Ponton, Y. Shadmi and Y. Shirman, "The GUT scale and superpartner masses from anomaly mediated supersymmetry breaking," hep-ph/0006047.

  Also another solution to the tachyon problem have been proposed by :

  I. Jack and D. R. Jones, "R-symmetry, Yukawa textures and anomaly mediated supersymmetry breaking," Phys. Lett. **B491**, 151 (2000) [hep-ph/0006116].

  where is possible if the underlying theory has a gauged R-symmetry.

  Another one

D. E. Kaplan and G. D. Kribs, "Gaugino-assisted anomaly mediation," JHEP**0009**, 048 (2000) [hep-ph/0009195].

presents a model of supersymmetry breaking mediated through a small extra dimension.

I am just wondering whether we should put those citations.

- Arrow on page 8 : Actually they are $\overline{DR}$ parameters. The RGE's in SUSY scenarios are always in the $\overline{DR}$ scheme since it is that scheme which preserves the SUSY ward identities up to two loops. More accurately it is a modified $\overline{DR}$ of

  I. Jack, D. R. Jones, S. P. Martin, M. T. Vaughn and Y. Yamada, "Decoupling of the epsilon scalar mass in softly broken supersymmetry," Phys. Rev. **D 50**, 5481 (1994) [hep-ph/9407291]

  By the way when say RGE's for the first time we must cite :

  S. P. Martin and M. T. Vaughn, Phys. Rev. **D 50**, 2282 (1994) [hep-ph/9311340];

  Y. Yamada, Phys. Rev. **D 50**, 3537 (1994) [hep-ph/9401241].

  I. Jack and D. R. Jones, Phys. Lett. **B333**, 372 (1994) [hep-ph/9405233].

  I. Jack, D. R. Jones, S. P. Martin, M. T. Vaughn and Y. Yamada, Phys. Rev. **D 50**, 5481 (1994) [hep-ph/9407291]

- Page 10 : Eq.(19) Only the bound on $m_{\tilde{q}}$ should be used. For the m-SUGRA that is $m_{\tilde{q}} \leq 2.5$ TeV within the reach of LHC.

- Page 10 : I do not think that I agree as you present reference [71]. In my paper with Herbi we found that a light sbottom with a mass ≤ 10 GeV is disfavoured with the MSSM embedded in an underlying theory (as it must be the case), *unless* the gluino is light and less than 20 GeV or so. But such a light gluino is only marginally (if at all) allowed by experiment. So if we put [71] I would like to say the above explicitly.

- Page 11 : "The original ...." I do not think that References [77-79] are necesary. Why don't we stress the problem that even LHC will find hard to detect such heavy spectrum?? (I always dislike those fine tunning things!)

- Page 11 : As Shufang said in her e-mail : "m_0 in AMSB " should be "m_0 and $m_{\rm aux}$ in AMSB"

- Page 13 : Please do not remove case III !! It is very interesting even without any (present) experimental support. Actually I discussed with B. Murray on that and he found it very interesting. He told me that there is a preliminary over excess when all the (SUSY) Higgses are having comparable masses of arround 100 GeV but of course we cannot take it as grant here!

- Page 15, below eq.(26) : The CDF bounds are given in both maximal-mixing and zero stop mixing. So the statement we write there is wrong. Interestingly case IIIA survives but IIIB is excluded by CDF (see fig.2 and 3) of Ref.[84]. So I suggest : "The "allowed" models in case (III) are just around the corner of being excluded by the CDF Higgs boson search." Nothing else....We should remove case IIIB.

- Page 15 : "In Fig.2.." paragraph. I think we exclude most points with $M_A > 1500$ GeV because of the REWSB or from the Higgs searces (small $\tan\beta$.). The $\Delta\rho$ bound should not be applied there since the MSSM looks like SM and the latter agrees with experiment. As it is written is also in contradiction of what we say below. The statement should be corrected as : "All models with $M_A \geq 1500$ GeV have been rejected mainly from REWSB and CCB constraints as well from Higgs searches (in small $\tan\beta region$)). Thus, we obtain an upper bound of $M_A \simeq 1.5$ TeV in the m-SUGRA scenario."

- I found the conclusions quite good! Bravo Sven!!

- Page 30 : Ackowledgements : Please add :

  A.D would like to thank Herbi Dreiner, Bill Murray and M. Kobel for illuminating discussions on the Higgs Searches at LEP. A.D also would like to acknowledge the European Program RTN-HPRN-CT-2000-00148, "Physics Across the Present Energy Frontier: Probing the Origin of Mass" for financial support.

- Please do not forget to remove footnote 9!!!! and the apologies (we do not have to apologize we did our best!)

- Univ. of Bonn has abolished the preprint number. So please remove that from the frontpage.

- It is great I think!

Sakis