Erratum: R-parity violating minimal supergravity model [Phys. Rev. D 69, 115002 (2004)]

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Eq. (86) of Allanach, Dedes and Dreiner, Phys. Rev. D **69**, 115002 (2004) has a factor of two missing in the denominator and should read

$$m_\nu = \frac{\mu(M_1 g_2^2 + M_2 g^2)\sum_{i=1}^{3}\Lambda_i^2}{2v_u v_d(M_1 g_2^2 + M_2 g^2) - 2\mu M_1 M_2}. \tag{1}$$

The factor of 2 changes some of the numerical values in Tables III and IV.

Figure 1 also changes slightly, as shown. There are no changes to the conclusions of the paper.

TABLE III. Upper bounds upon trilinear λ' couplings for SPS1a in the quark mass eigenbasis at the weak scale M_Z and in the weak eigenbasis at the GUT scale M_{GUT}. The quark mixing assumption is shown in the first row for each case. Input parameters are given in the text. A superscript of t, ν denotes the fact that the strongest bound comes from the absence of tachyons or the neutrino mass constraint respectively.

	No mixing		Up mixing		Down mixing	
	M_{GUT}	M_Z	M_{GUT}	M_Z	M_{GUT}	M_Z
λ'_{111}	$1.8\times10^{-3\nu}$	6.0×10^{-3}	$1.8\times10^{-3\nu}$	5.9×10^{-3}	$1.0\times10^{-3\nu}$	3.2×10^{-3}
λ'_{211}	$1.8\times10^{-3\nu}$	6.0×10^{-3}	$1.8\times10^{-3\nu}$	5.9×10^{-3}	$1.0\times10^{-3\nu}$	3.2×10^{-3}
λ'_{311}	$1.8\times10^{-3\nu}$	6.0×10^{-3}	$1.8\times10^{-3\nu}$	5.9×10^{-3}	$1.0\times10^{-3\nu}$	3.2×10^{-3}
λ'_{121}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{221}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{321}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{131}	0.15^t	0.40	0.15^t	0.40	$9.1\times10^{-4\nu}$	2.6×10^{-3}
λ'_{231}	0.15^t	0.40	0.15^t	0.40	$9.1\times10^{-4\nu}$	2.6×10^{-3}
λ'_{331}	0.15^t	0.40	0.15^t	0.40	$9.0\times10^{-4\nu}$	2.6×10^{-3}
λ'_{112}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{212}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{312}	0.13^t	0.39	0.13^t	0.38	$5.0\times10^{-4\nu}$	1.6×10^{-3}
λ'_{122}	$1.0\times10^{-4\nu}$	3.5×10^{-4}	$1.1\times10^{-4\nu}$	3.4×10^{-4}	$1.0\times10^{-4\nu}$	3.3×10^{-4}
λ'_{222}	$1.1\times10^{-4\nu}$	3.5×10^{-4}	$1.1\times10^{-4\nu}$	3.4×10^{-4}	$1.0\times10^{-4\nu}$	3.3×10^{-4}
λ'_{322}	$1.1\times10^{-4\nu}$	3.4×10^{-4}	$1.1\times10^{-4\nu}$	3.4×10^{-4}	$1.0\times10^{-4\nu}$	3.3×10^{-4}
λ'_{132}	0.15^t	0.40	$2.6\times10^{-2\nu}$	7.7×10^{-2}	$7.6\times10^{-5\nu}$	2.2×10^{-4}
λ'_{232}	0.15^t	0.40	$2.6\times10^{-2\nu}$	7.7×10^{-2}	$7.6\times10^{-5\nu}$	2.2×10^{-4}
λ'_{332}	0.15^t	0.40	$2.6\times10^{-2\nu}$	7.6×10^{-2}	$7.5\times10^{-5\nu}$	2.2×10^{-4}
λ'_{113}	0.13^t	0.39	$5.1\times10^{-3\nu}$	1.6×10^{-2}	$8.2\times10^{-4\nu}$	2.7×10^{-3}
λ'_{213}	0.13^t	0.39	$5.1\times10^{-3\nu}$	1.6×10^{-2}	$8.2\times10^{-4\nu}$	2.7×10^{-3}
λ'_{313}	0.13^t	0.39	$5.1\times10^{-3\nu}$	1.6×10^{-2}	$8.1\times10^{-4\nu}$	2.7×10^{-3}
λ'_{123}	0.13^t	0.39	$7.1\times10^{-4\nu}$	2.3×10^{-3}	$6.9\times10^{-5\nu}$	2.2×10^{-4}
λ'_{223}	0.13^t	0.39	$7.1\times10^{-4\nu}$	2.3×10^{-3}	$6.9\times10^{-5\nu}$	2.2×10^{-4}
λ'_{323}	0.13^t	0.39	$7.0\times10^{-4\nu}$	2.2×10^{-3}	$6.8\times10^{-5\nu}$	2.2×10^{-4}
λ'_{133}	$3.1\times10^{-6\nu}$	8.9×10^{-6}	$3.1\times10^{-6\nu}$	8.9×10^{-6}	$3.1\times10^{-6\nu}$	8.9×10^{-6}
λ'_{233}	$8.9\times10^{-6\nu}$	8.9×10^{-6}	$3.1\times10^{-6\nu}$	8.9×10^{-6}	$3.1\times10^{-6\nu}$	8.9×10^{-6}
λ'_{333}	$3.0\times10^{-6\nu}$	8.9×10^{-6}	$3.0\times10^{-6\nu}$	8.9×10^{-6}	$3.0\times10^{-6\nu}$	8.9×10^{-6}

TABLE IV. Upper bounds upon trilinear λ couplings for SPS1a at the weak scale M_Z and at the GUT scale M_{GUT}. Input parameters are given in the text. A superscript of t, ν denotes the fact that the strongest bound comes from the absence of tachyons or neutrino masses respectively.

	M_{GUT}	M_Z
λ_{121}	0.10^{ν}	0.15
λ_{131}	0.10^{ν}	0.15
λ_{231}	0.55^{t}	0.61
λ_{122}	$6.3 \times 10^{-4\nu}$	9.4×10^{-4}
λ_{132}	0.55^{t}	0.61
λ_{232}	$6.2 \times 10^{-4\nu}$	9.3×10^{-4}
λ_{123}	$0.50t$	0.58
λ_{133}	$3.6 \times 10^{-5\nu}$	5.4×10^{-5}
λ_{233}	$3.6 \times 10^{-5\nu}$	5.4×10^{-5}

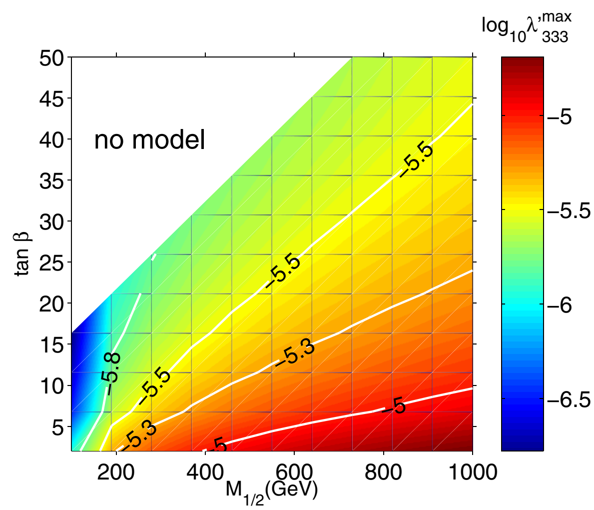

FIG. 1 (color online). Upper bound upon $\lambda'_{333}(M_{GUT})$ as a function of no-scale mSUGRA parameter point, assuming all quark mixing resides in the down sector at the weak scale. The background colour displays the bound as measured by the bar on the right hand side. Contours of iso-bound are also shown. In the top left-hand white region there is no tachyon-free model for any value of the coupling.

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