Search for supersymmetry in final states with jets, missing transverse momentum and one isolated lepton in √s = 7 TeV pp collisions using 1 fb-1 of ATLAS data

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This paper was published online on 18 January 2012 with an omission of text on page 13. On page 13, the second-to-last paragraph in the right-hand column should read as ''Limits within the MSUGRA/CMSSM framework are derived from a second fit to signal and control regions, in ''exclusion mode.'' This fit mode tests for a specific new physics model, and uses signal predictions in the signal regions as well as in the control regions. The results are interpreted as limits for a grid of signal models in the $(m_0, m_{1/2})$ plane, as shown in Fig. 7. To combine the four signal regions, the selection yielding the best expected limit for a given parameter point is used. The second-to-last column in Table IV shows the values of CL_B, the confidence level for the background hypothesis, which indicates the amount of downward fluctuation of the observation, used in the CL_s limit calculation. Within the MSUGRA/CMSSM framework, and for equal squark and gluino masses, gluino masses below 820 GeV are excluded at 95% CL by this analysis. Varying $\tan\beta$ from 3 to 10, the limits are to a good approximation independent of $\tan\beta$. For higher values of $\tan\beta$, up to $\tan\beta = 40$, the effect on the limits depends on m_0 and $m_{1/2}$; for regions in the $(m_0, m_{1/2})$ plane with $m_{\tilde{q}\,\tilde{q}} \approx m_{\tilde{q}\,\tilde{q}}$, mass limits deteriorate by up to 10%.'' Additionally, on page 13, the first row of Table II was omitted. The table is shown in its entirety here. The paper has been corrected as of 10 May 2013. The text is missing in the printed version of the journal.

TABLE II. Fit results for the electron (top part) and muon (bottom part) channels in the loose 3-jet (3JL) and tight 3-jet (3JT) signal regions. The results are obtained from the control regions using the ''discovery fit'' (see text for details). Nominal MC expectations (normalized to MC cross sections) are given between parentheses for comparison.

Electron channel	3JL Signal region	3JT Signal region	Top region	W region
Observed events	71	14	162	565
Fitted top events	56 ± 20 (51)	7.6 ± 3.0 (6.8)	125 ± 16 (112)	64 ± 8 (58)
Fitted W/Z events	35 ± 20 (34)	10.5 ± 6.5 (10.1)	30.1 ± 9.1 (29.3)	425 ± 36 (413)
Fitted multijet events	$6.0^{+2.3}_{-1.4}$	$0.46^{+0.37}_{-0.22}$	7.2 ± 2.6	76 ± 24
Fitted sum of background events	97 ± 30	18.5 ± 7.4	162 ± 13	565 ± 24

Muon channel	3JL Signal region	3JT Signal region	Top region	W region
Observed events	58	11	166	413
Fitted top events	47 ± 16 (38)	8.9 ± 3.2 (7.3)	142 ± 14 (115)	70 ± 7 (57)
Fitted W/Z events	16.6 ± 9.4 (20.1)	5.0 ± 3.2 (61)	19.0 ± 4.8 (232)	322 ± 23 (393)
Fitted multijet events	$0.0^{+0.0}_{-0.0}$	$0.0^{+0.6}_{-0.0}$	5.4 ± 2.2	21.6 ± 5.7
Fitted sum of background events	64 ± 19	13.9 ± 4.3	166 ± 13	413 ± 20

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