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Estimates for the lightest baryon masses in $\mathcal{N} = 1$ supersymmetric Yang-Mills theory

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$\mathcal{N} = 1$ supersymmetric Yang-Mills theory describes gluons interacting with gluinos, which are spin 1/2 Majorana particles in the adjoint representation of the gauge group. In addition to glueballs and mesonic bound states, the theory contains colour neutral bound states of three gluinos, which are analogous to baryons in QCD. We calculate their correlation functions, involving sunset diagrams and spectacle diagrams, numerically for gauge group SU(2), and present an update on the estimates for the lowest masses.

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