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## Automated Choice for the Best Renormalization Scheme in the Chargino/Neutralino Sector

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Higher-order corrections involving (external) charginos and/or neutralinos require a renormalization of this sector. External particles should be renormalized on-shell (OS). Since the six chargino/neutralino masses are controlled by three mass parameters, many different OS renormalization schemes (RS) are possible. A given RS can be well suited to yield “stable” and “well behaved” higher-order corrections in one part of the MSSM parameter space, but can fail completely in other parts. We present a method how to choose a well behaved RS before the higher-order correction is carried out. We demonstrate the effectiveness of our method for the one-loop calculation of chargino decay widths. This new method for the RS choice now allows the full automation of higher-order corrections in the chargino/neutralino sector.

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