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Next-to-leading order calculation of the charged wino decay rate

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The charged wino decay plays an important role in the search for supersymmetric particles in accelerator experiments. We performed full one-loop calculation of the charged wino decay rate, which has not been done before, and improved the accuracy of theoretical predictions. By incorporating the effects of chiral perturbation theory and various quantum corrections, I will discuss that the decay rate is corrected by a few percent from the tree level calculation.

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