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## MadDM: A Comprehensive Tool for Particle Dark Matter Studies

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We present MadDM v.3.0, a numerical tool to compute particle dark matter observables. The new version features a comprehensive and automated framework for dark matter searches at the interface of collider physics, astrophysics and cosmology and is deployed as a plugin of the MadGraph5\_aMC@NLO platform, inheriting most of its features. With respect to the previous version, MadDM v.3.0 now provides predictions for indirect dark matter signatures in astrophysical environments, such as the annihilation cross section at present time and the energy spectra of prompt photons, cosmic rays and neutrinos resulting from dark matter annihilation. MadDM indirect detection features support both  $2 \rightarrow 2$  and  $2 \rightarrow n$  dark matter annihilation processes. In addition, the ability to compare theoretical predictions with experimental constraints is extended by including the Fermi-LAT likelihood for gamma-ray constraints from dwarf spheroidal galaxies.

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