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## CLUMPY: A public code for $\gamma$ -ray and $\nu$ signals from Dark Matter structures

*Wednesday 9 August 2017 14:45 (15 minutes)*

In this talk we will present the latest development of the CLUMPY code. The first version aimed at the calculation of the astrophysical J-factors from dark matter annihilation/decay in any galaxy or galaxy cluster dark matter halo including substructures. While refining on several aspects of the first version (halo-to-halo concentration scatter, multi-level boost factors, and triaxiality), the second release additionally provides i) a full refactoring of the I/O, ii) skymaps for  $\gamma$ -ray and  $\nu$  fluxes from generic annihilation/decay spectra and the associated angular power spectrum, and iii) a Jeans analysis module to obtain dark matter density profiles and J-factors from kinematic data in relaxed spherical systems (e.g., dwarf spheroidal galaxies). After presenting some examples of these functionalities, we will also discuss the ongoing development of a third release that will include the overall extragalactic  $\gamma$ -ray flux from cosmic dark matter structure.

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