

Codes

- [Phox and Diphox and the Phox Family](#) :
- P. Aurenche, T. Binoth, M. Fontannaz, J. Ph. Guillet, G. Heinrich, E. Pilon, M. Werlen

This is a set of a **NLO** FORTRAN codes allowing users to compute **single and double inclusive large pt cross sections** for reactions involving **photons, hadrons and jets**.

- [Golem:](#)
- T. Binoth , G. Cullen, J.Ph. Guillet, G. Heinrich, T. Kleinschmidt, E. Pilon, T. Reiter, M. Rodgers

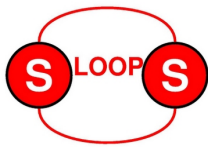
This code evaluates numerically the form factors entering the calculation of one-loop amplitudes with up to six external legs. The program performs the reduction to a certain set of basis integrals numerically, using a formalism where inverse Gram determinants can be avoided. It can be used to calculate one-loop amplitudes, with or without massless internal particles, in a fast and numerically stable way.



[micrOMEGAs](#)

- G. Bélanger, F. Boudjema, A. Pukhov, A. Semenov

A code for the calculation of Dark Matter properties including the relic density, direct and indirect rates in a general supersymmetric model and other models of New Physics.



[SloopS](#)

- N. Baro, F. Boudjema, G. Chalons, A. Semenov, D. Temes

SloopS is a code for the calculation of cross sections and other observables at one-loop in the MSSM. Renormalisation is performed in the On-Shell Scheme with the possibility of easily switching to other schemes. SloopS has been designed so that it has applications not only for physics at colliders but also for astrophysics and cosmology.



- J. Harz, B. Herrmann, M. Klasen, K. Kovarik, Q. Le Boulc'h, M. Meinecke, P. Steppeler

DM@NLO is a numerical code to compute the annihilation cross-section of the neutralino in the Minimal Supersymmetric Standard Model at next-to-leading order in α_s . The package is designed to work with micrOMEGAs in order to evaluate the relic density of the neutralino including the corrections in QCD and SUSY-QCD. An interface to DarkSUSY is under development.

- [Online Generators](#)
- F. Arleo and J.Ph. Guillet

Online generation of fragmentation functions and nuclear parton distributions.