

MG5aMC; main 4 steps

- MG5_aMC> import model **MODEL** (e.g. 2HDM)
- MG5_aMC> generate **PROCESS** (e.g. $p p \rightarrow t t^{\sim}$)
- MG5_aMC> output (**myprocess**)
- MG5_aMC> launch
- MG5_aMC> launch
- MG5_aMC> ...

MG5aMC; tips

- Use auto-completion by “tab (tab)”.
- MG5_aMC> help
- MG5_aMC> help **COMMAND** (e.g. generate)
- MG5_aMC> tutorial

One can directly communicate with the developers via Launchpad (ask questions, report bugs, etc).

EX-I; R-ratio

- Compute the total cross section for $e^-e^+ \rightarrow \mu^-\mu^+$ in QED at 2 different center-of-mass (CM) energies
- Compare with the analytic result.
- Confirm the R-ratio below and above the J/ψ threshold.