Instructions for preparation and running of the program

If the downloaded file untared with a command
`tar -xzvf carlomat_4.0.tgz`
it will create directory `carlomat_4.0` with sub directories:
`code_generation`, `mc_computation`, `carlolib_qp`, `test_output` and `test_output0`.

Preparation for running the current version requires basically the same steps as in former versions.

- Choose a Fortran 90 compiler in `makefile`'s of `code_generation` and `mc_computation` and compile all the routines of `carlolib_qp` with the same compiler as that chosen in `mc_computation`;
- Specify the process and required options in `carlomat.f` and execute
  `make code`
  from the command line in `code_generation`;
- Go to `mc_computation`, choose the center of mass energy and required options in `carlocom.f/carlocom_mpi.f` and execute
  `make mc`
  in the command line or, in order to run the program in a parallel mode with the MPI, execute the command
  `make -f mpi mc`,
  where `mpi` is the corresponding makefile which prior to the execution should be edited and the variables at the top of it, which specify the number of processor cores, name of the Fortran compiler and compilation options, set to appropriate values, e.g.
  `n_cores:=2`
  `FF=mpif90`
  `FFLAGS=-O.`

Whenever the Fortran compiler is changed, or a compiled program is transferred to another computer with a different processor, all the object and module files should be deleted by executing the commands:
`rm *.o`
`rm *.mod`
and the necessary steps of those listed above should be repeated.

The basic output of the MC run is written to file `tot_name`, where `name` is created automatically if the assignment for character variable
`prcsnm='auto'`
in `carlomat.f` is left unchanged. The user can append an extra suffix to this automatically created name that is defined by character variable `outchr` in `carlocom.f/carlocom_mpi.f`. Obviously, variable `prcsnm` can be assigned to any user's defined name.

If the unweighted MC events are to be generated, choose
`imc=1`
in either `carlocom_.f` or `carlocom_mpi.f` and see the MC events collected in file `unweighted_mc_events_cmsenergy`.

The output files for a few processes are delivered in directory `test_output0`. They can be reproduced, up to one standard deviation of the MC integration, by generating code for the corresponding reactions and running the generated MC proogram with the same parameters and appropriate options.