```
###################
# Global parameters
###################
# Virial velocity of the galaxy [km/s]
v200                        150.0
# Virial mass of the galaxy [1e10 Msol]
# Overrides the v200 parameter
m200                        107.4
# Halo spin parameter
lambda                    0.04
# Refinement level of the potential grid
level_coarse                7
# Refinement level of the plane plane density grid
level_grid_mid_dens         7
# Refinement level of the turbulence grid
level_grid_turb                     7
# Refinement level of the gaussian field grid
level_grid_dens_fluct               7
# Size of the potential grid [kpc]
boxsize1                    100.0
boxsize2                  14.0
boxsize3                  5.0
# Dispersion for the Gaussian field fluctuations
dens_fluct_sigma            0.50
# Physical injection scale of the random field fluctuations [kpc]
dens_fluct_scale_inj        2.00
# Physical dissipation scale of the random field fluctuations [kpc]
dens_fluct_scale_diss       0.25
dens_fluct_seed                     1212
# Seed for the random number generator
seed                      1246
# Switch to MCMC ntry algorithm to position particles for a value > 1
mcmc_ntry                 1
# Number of iterations to reach hydrostatic equilibrium (zero to deactivate)
hydro_eq_niter                      3


#######################
# Components parameters
#######################

#######################
# Component 1: Halo
#######################
# Fraction of the virial mass in the component 1
mass_frac1                0.9636819104
# Number of particles for the component 1
npart1                    100000
# Target mass of individual particles [Msol]
```

```
part_mass1                         3.564e8
# Number of particles for the potential computation
#npart_pot1              200000
# Target mass of individual particles for potential computation [Msol]
#part_mass_pot1                            1e6
# Component 1 density model
# Available models:
# 1  = Exponential disk + sech-z profile
# 2  = Myamoto-Nagai profile
# 3  = Exponential disk + exponential-z profile
# 4  = Hernquist profile
# 5  = Plummer profile
# 6  = Jaffe profile
# 7  = Isothermal profile
# 8  = NFW profile
# 9  = Burkert
# 10 = Einasto profile
# 11 = Mestel profile
# 12 = Kalnajs profile
# 13 = Sersic profile
# 14 = Toomre-Kuzmin profile
# 15 = Uniform profile
# 16 = Pseudo-isothermal profile
model1                                   8
# Scale length of the density profile [kpc]
scale_length1                      1.
# Core radius in the density profile [kpc]
rcore1                             0.
# Concentration parameter
# if positive, the scale length is recomputed to match the concentration
# the concentration parameter of an NFW halo with a mass M200*mass_frac
concentration1                           10.0
# Gravitational softening for the poisson solver [kpc]
softening1                 0.6
# Component 1 radial density cut [kpc]
cut1                            0.
# Component 1 thickness parameters
flatx1                          1.00
flaty1                          1.00
flatz1                          1.00
# Gaussian step for the MCMC Metropolis-Hasting particle postionning algorithm,
# expressed in units of the component scale length. Default value is 0.5.
mcmc_step1                      0.50
# Maximum velocity for the component 1 particles in expressed in units of escape velocity
vmax_esc1                       5.0
# Particles type (GADGET format -- 0=Gas,1=Halo,2=Disk,3=Bulge,4=Stars)
type1                           1
# Streaming fraction of the component 1
stream_fraction1                   0.00
```

Radius at which the density profile should have the exact same
value as the NFW profile with the previously defined concentration
and with a mass M200*mass_frac [kpc]
radius_nfw1 1.0
Cut the density function in the Jeans equation integration
jeans_mass_cut1 1
Compute component velocity (debug option)
compute_vel1 1
Number of integral of motion for the Jeans equations
0 = Do not use Jeans equation for sigma_r and sigma_z
1 = Spherically symmetric Jeans equation
2 = Jeans equations with 2 integrals of motion
3 = Jeans equations with 3 integrals of motion (solved on a 2D grid in the r-z plane)
jeans_dim1 1
Method for streaming velocity computation
0 = - User defined fixed fraction of the circular velocity profile (stream_fraction keyword)
1 = Bullock 2001 - Streaming velocity profile following the cumulative mass profile
2 = Springel 1999 - Streaming velocity profile following is a fixed fraction of the rotation curve
3 = - Solid Body rotation
stream_method1 1
Alpha coefficient for the generalized normal distribution [Gaussian=2.0]
for the random generation of velocities
ggd_beta1 2.0
Minimum acceptance for the MCMC chain
accept_min1 0.80
Maximum acceptance for the MCMC chain
accept_max1 0.95

##################################
Component 2: Thin stellar disk
##################################
mass_frac2 0.02641287
npart2 100000
#npart_pot2 200000
part_mass2 3.437e5
model2 3
If the value is zero and the particle type is not 1 the size is determined using the spin conservation
(Fitting formula from Mo, Mao & White 1998)
scale_length2 3.432
cut2 4.5
flatz2 0.15
mcmc_step2 0.3
type2 2
stream_fraction2 1.00
Epicycle approximation in the Jeans equations
epicycle2 1
Minimal value for the Toomre parameter
Q_lim2 1.25
Fixed value for the Toomre parameter

```
Q_fixed2                        0.0
# Additional term for the Toomre parameter
Q_boost2                        0.0
# Past constant Star Formation Rate [Msol/yr]
# Negative value recomptes the SFR according to Bouché et al. 2010
SFR2                            -1.
# Minimum age of the stars [Myr]
min_age2                0.
# Metallicity of the stars [Zsolar]
metal2                  0.01
# Gaussian fluctuations in the density field
dens_fluct2                     0
# Use the density cut during the Jeans equation integration
jeans_mass_cut2                         1
compute_vel2                    1

############################
# Component 3: Gaseous disk
############################
mass_frac3                      0.0066036034
npart3                          100000
#npart_pot3             200000
part_mass3                      8.593e4
model3                                  3
scale_length3                   3.432
cut3                            4.5
flatz3                          0.25
mcmc_step3                      0.15
type3                           0
stream_fraction3                1.00
metal3                  0.01
# Metallicity follows density gradient
metal_gradient3                         1
# Temperature of the gas particles [K]
t_init3                 1e5
# Turbulent velocity dispersion [km/s]
turb_sigma3                     0.0
# Turbulence injection scale [kpc]
turb_scale_inj3                         1.0
# Turbulence dissipation scale [kpc]
turb_scale_diss3                0.01
# Seed for the turbulent gaussian field
turb_seed3                      1234
# Compute hydrostatic equilibrium
hydro_eq3                       1
# Gaussian step for the MCMC Metropolis-Hasting particle postionning algorithm
# within the hydro equilibrium algorithm
mcmc_step_hydro3                0.3
compute_vel3                    1
```

```
# Polytropic index for the gas (1 = isothermal)
gamma_poly3                    1.0

############################
# Component 4: Stellar bulge
############################
mass_frac4                  0.0033016095
npart4                      12500
#npart_pot4            25000
part_mass4                     3.437e5
model4                               4
scale_length4                  2.0
cut4                        4.0
flatz4                      0.80
mcmc_step4                  0.3
vmax_esc4                   2.0
type4                       3
stream_fraction4               0.5
min_age4               50.
metal4                 0.001
# Structural parameter specific to the Einasto density profile
alpha_struct5                  0.80
compute_vel4                   1

###############################
# Component 5: Stellar spheroid
###############################
mass_frac5                  0.0
npart5                      0
npart_pot5             0
model5                               4
scale_length5                  2.0
cut5                        6.0
flatz5                      0.40
mcmc_step5                  0.3
vmax_esc5                   2.0
type5                       2
stream_fraction5               1.00
min_age5               50.
metal5                 0.001
Q_lim5                               1.5
compute_vel5                   1
```