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# Runtime options file for Phantom, written 08/12/2020 11:22:44.5
# Options not present assume their default values
# This file is updated automatically after a full dump

# job name
  logfile = galdisk02.log ! file to which output is directed
  dumpfile = galdisk_00100 ! dump file to start from

# options controlling run time and input/output
  tmax = 10. ! end time
  dtmax = 0.100 ! time between dumps
  nmax = -1 ! maximum number of timesteps (0=just get derivs and stop)
  nout = -1 ! number of steps between dumps (-ve=ignore)
  nmaxdumps = -1 ! stop after n full dumps (-ve=ignore)
  twallmax = 000:00 ! maximum wall time (hhh:mm, 000:00=ignore)
  dtwallmax = 012:00 ! maximum wall time between dumps (hhh:mm, 000:00=ignore)
  nfulldump = 1 ! full dump every n dumps
  iverbose = 0 ! verbosity of log (-1=quiet 0=default 1=allsteps 2=debug 5=max)

# options controlling accuracy
  C_cour = 0.300 ! Courant number
  C_force = 0.250 ! dt_force number
  tolv = 1.000E-02 ! tolerance on v iterations in timestepping
  hfact = 1.200 ! h in units of particle spacing [h = hfact(m/rho)^(1/3)]
  tolh = 1.000E-04 ! tolerance on h-rho iterations

# options controlling hydrodynamics, artificial dissipation
  alpha = 0.000 ! MINIMUM art. viscosity parameter
  alphamax = 1.000 ! MAXIMUM art. viscosity parameter
  alphau = 1.000 ! art. conductivity parameter
  beta = 2.000 ! beta viscosity
  avdecayconst = 0.100 ! decay time constant for viscosity switches

# options controlling damping
  idamp = 0 ! artificial damping of velocities (0=off, 1=constant, 2=star)

# options controlling equation of state
  ieos = 2 ! eqn of state (1=isoth;2=adiab;3=locally iso;8=barotropic)
  mu = 2.381 ! mean molecular weight
  ipdv_heating = 1 ! heating from PdV work (0=off, 1=on)
  ishock_heating = 1 ! shock heating (0=off, 1=on)

# options controlling cooling
  icooling = 0 ! cooling function (0=off, 1=on)

# options relating to external forces
  iexternalforce = 8 !
1=star,2=coro,3=bina,4=prdr,5=toru,6=toys,7=exte,8=spir,9=Lens,10=dens,11=Eins,

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# options relating to spiral potentials

idisk = 1 ! type of disk potential (1:log 2:flattened 3:Freeman w. bar/arm)  
ibulg = 0 ! type of bulge potential (1:Plummer 2:Hernquist 3:Hubble)  
ihalo = 0 ! type of halo potential (1:C&O 2:Flat 3:A&M 4:K&B 5:NFW)  
iarms = 0 ! type of arm potential (1:C&G 2:4 P&M spheroids+linear)  
ibar = 0 ! type of bar potential (1:biaxial 2:triaxial 3:G2G3 4:Dehnen cos 5:S-shape

6:Wada cos)

iread = 0 ! Read in potential from file (1=y,0=n)  
NN = 2.000 ! No of arms in stellar spiral potential  
pitchA = 15. ! Pitch angle of spiral arms (deg)  
phir = 20. ! Spiral potential pattern speed (km/s/kpc)  
phib = 40. ! Bar(s) potential pattern speed (km/s/kpc)  
a\_bar = 4.000 ! Major axis of galactic bar (in x, kpc)  
b\_bar = 1.000 ! Minor axis of galactic bar (in y, kpc)  
c\_bar = 1.000 ! Minor axis of galactic bar (in z, kpc)

# options controlling physical viscosity

irealvisc = 0 ! physical viscosity type (0=none,1=const,2=Shakura/Sunyaev)  
shearparam = 0.100 ! magnitude of shear viscosity (irealvisc=1) or alpha\_SS (irealvisc=2)  
bulkvisc = 0.000 ! magnitude of bulk viscosity

# options for injecting/removing particles

rkill = -1.000 ! deactivate particles outside this radius (<0 is off)