N7457

Cortesi et al 2013b
Name mD Rd b/a incl P A mB Re n b/a P A B/T
NGC 7457 8.56 27.07 0.48 62 –57.28 9.49 11.62 4 0.62 –46.04 0.30

Cortesi et al. 2013a
Name Type D cz Ngroup K
NGC 7457 SA0-(rs) 13.2 812 2 8.192 ± 0.024

PNE 113, 29 per bin, v_av= 833.591919
xp,yp,xss,yss,ps,Rc,Rmc,Rsc,Dc,Dmc,Dsc,pa,incl,vned

1075.78 1227.54 194. 194. 0.6 23. 0 59.9399986 30. 8. 42. 0. 62.6 823 4

LCUT
-6.5000000000000000 -5.8499999999999996 -6.5000000000000000 -6.5000000000000000

note PA = 0 + 32.2 (look at pa in the code) **it is the PA that given a photometric PA of – 57.28 (with 0 being up) align the major axis to x, then we shift x = –x to turn the red to the other side.**

output
I copied likelihood.dat, error.dat and bin.dat of the pne in like_pne.da, error_pne.dat, bin_pne.dat

I created lcut.dat from one of the file output of ML.f print on the screen -6.5000000000000000 -5.8499999999999996 -6.5000000000000000 -6.5000000000000000, I transformed it form line to column.

GC ML, 40, 20 per bin, v_av= 838.849976

input
xp,yp,xss,yss,ps,radeg,decdeg,pa,incl,vned,c_sep
0.0 0.0 0.0 0.0 1.01 345.249583333 30.145 0 62.0 844.0 –1000.0

nb: pa is 32.2, is 0 here but I add 32.2 in the code, look for pa

output: likelihood.dat, error.dat, bin.dat (use +–20 Km/s as error, it s the right thing to do, the error is not wrong is just that the way we are calculating, chisq=–2lnL, given the confidence level we assume, 2sigma (0.25), finds no errors, i.e. the error is the 'measured error' 20km/s. If you would increase form 0.25 to 0.1 you will find an error, but no need to do that (better to do things homogeneously)

GC prob

input
xp,yp,xss,yss,ps,radeg,decdeg,pa,incl,vned,nbin
0.0 0.0 0.0 0.0 1.01 345.249583333 30.145 0 62.0 844.0 4

nb: pa is 32.2, is 0 here but I add 32.2 in the code, look for pa

output: for_lod_0.dat

ra_c(i),dec_c(i),xs_c(i),ys_c(i),vel_c(i),fb_c(i),ftot(i),gi_c(i),comp_c(i),bin_c(i),i_c(i)

fb_ photometric probability
ftot photo + kine probability
comp_c = 5 rejected (using lcut.dat from the PNE)

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N2768

Cortesi et al 2013b
Name mD Rd b/a incl P A mB Re n b/a P A B/T
NGC 2768 8.19 42.93 0.29 73 –86.25 7.23 50.46 4.65 0.66 –85.39 0.71

Cortesi et al. 2013a
Name Type D cz Ngroup K
NGC 2768 E6 22.4 1373 3 6.997 ± 0.031

PNE NO SPH V 315, 79 per bin, v_av= 1368.30359

input
890. 1125. 194. 194. 0.6 9. 11. 37.5 60. 2. 14. 3.75 73. 1373. 4

LCUT -6.8499999999999996 -6.8499999999999996 -7.5000000000000000 -7.3499999999999996

output

I copied likelihood.dat, error.dat and bin.dat of the pne in like.pne.da, error.pne.dat, bin.pne.dat

PNE SPH V 315, 79 per bin, v_av= 1368.30359

input
890. 1125. 194. 194. 0.6 9. 11. 37.5 60. 2. 14. 3.75 63. 1353. 4

LCUT (the one you need to use in prob_bd_bulge.f) is saved in bin_rej.dat

output

bin_2768.dat, likelihood_2768.dat

GC ML, 106, 36 per bin (3 bins), v_av= 1323.38232

input
xp,yp,xss,yss,ps,Rc,Rmc,Rsc,Dc,Dmc,Dsc,pa,incl,vned,nbin

0.0 0.0 0.0 0.0 1.01 137.90625 60.0372222222 3.75 63.0 1373.0 0.57
nb: pa is correct

output

again I have run it only for the all pop, please do it for only blue and only red

GC prob

input
890. 1125. 194. 194. 0.6 9. 11. 37.5 60. 2. 14. 3.75 63. 1353. 4

output: for_lod.dat

ra_c(i),dec_c(i),xs_c(i),ys_c(i),vel_c(i),fb_c(i),ftot(i),gi_c(i),comp_c(i),bin_c(i),i_c(i)

fb_ photometric probability
ftot photo + kine probability
comp_c = 5 rejected (using lcut.dat from the PNE)

N3115

Cortesi et al 2013b
Name mD Rd b/a incl P A mB Re n b/a P A B/T
NGC 3115 8.34 53.69 0.39 67 45.00 7.17 26.19 4 0.31 45.00 0.74

Name Type D cz Ngroup K
NGC 3115 S0-edge-on 9.68 663 1 5.88 ± 0.017

PNE 189,48 per bin, v_av= 662.635925
1020.25 1280.87 194. 194. 0.6 10. 5. 14. -7. -43. -7.5 0. 67. 663. 4

LCUT
-6.8499999999999996 -7.1500000000000004 -6.8499999999999996 -6.5000000000000000

pa_rad=(-45.4+180)*pi/180
nb the pa in the input file is not use I use -45.4

output

I copied likelihood.dat, error.dat and bin.dat of the pne in like_pne.da, error_pne.dat, bin_pne.dat

I created lcut.dat from one of the file output of ML.f print on the screen

GC ML,149, 4, 29.8 per bin, v_av=   703.751709

input
xp,yp,xss,yss,ps,radeg,decdeg,pa,incl,vned,c_sep
0.0 0.0 0.0 0.0 1.01 151.308333333 -7.71861111111 0.0 67.0 663.0 0.93

output: likelihood.dat, error.dat, bin.dat (I have run it only for the all pop, please run it for red and blue)

GC prob

input
xp,yp,xss,yss,ps,radeg,decdeg,pa,incl,vned,nbin
0.0 0.0 0.0 0.0 1.01 151.308333333 -7.71861111111 0.0 67.0 663.0 0.93

nb: pa is-45.5+180, is 0 here, but look for pa in the code

output: for_lod_0.dat

ra_c(i),dec_c(i),xs_c(i),ys_c(i),vel_c(i),fb_c(i),ftot(i),gi_c(i),comp_c(i),bin_c(i),i_c(i)

fb_ photometric probability
ftot photo + kine probability
comp_c = 5 rejected (using lcut.dat from the PNE)

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NOTE
we use vhel = v - av
general question what are you using in the last two columns of the input file?