

GalaxyData.py

V_{rec}

galaxy_data.dat

Average of dpc_v
for each cepheid in
this galaxy



#Galaxy #Name	Recession Velocity (km/s)	$A_{(V,MW)}$ (mag)
NGC3627	427	0.0992
NGC3982	1510	0.0434
NGC4496A	1152	0.0775
NGC4527	1152	0.0682
NGC4536	1152	0.0558
NGC4639	1152	0.0806
NGC5253	170	0.1736
IC4182	303	0.0434

dpc_v

H_0

MW Cepheids.py

MW_Cepheids.dat

#Object #	parallax [mas]	err(par) [mas]	Period [days]	m_V [mag]	m_I [mag]	A_V [mag]	err(A_V) [mag]
#							
l-Car	2.01	0.20	35.551341	3.732	2.557	0.52	0.06
zeta-Gem	2.78	0.18	10.15073	3.911	3.085	0.06	0.03
beta-Dor	3.14	0.16	9.842425	3.751	2.943	0.25	0.05
W-Sgr	2.28	0.20	7.594904	4.667	3.862	0.37	0.03
X-Sgr	3.00	0.18	7.012877	4.556	3.661	0.58	0.1
Y-Sgr	2.13	0.29	5.77338	5.743	4.814	0.67	0.04
delta-Cep	3.66	0.15	5.36627	3.960	3.204	0.23	0.03
FF-Aql	2.81	0.18	4.470916	5.372	4.510	0.64	0.06
T-Vul	1.90	0.23	4.435462	5.752	5.052	0.34	0.06
RT-Aur	2.40	0.19	3.72819	5.464	4.778	0.20	0.08

GalCepheids.py

hst_gall_cepheids.dat

#NGC 3627 #Name	logP	m_V	m_I
C2-V4	1.623	24.55	23.53
C2-V8	1.602	24.87	24.05
C2-V10	1.342	24.71	24.23
C2-V12	1.415	25.03	24.05
C2-V13	1.260	25.83	24.99
C2-V15	1.431	25.71	24.70
C2-V17	1.613	24.24	23.20
C2-V19	1.763	24.80	23.86
C2-V20	1.415	24.84	24.03
C2-V22	1.255	25.19	24.48
C2-V29	1.272	25.58	24.61
C2-V32	1.407	25.29	24.26
C2-V33	1.505	24.64	23.68
C2-V34	1.681	24.35	23.28
C2-V35	1.452	25.24	24.35
C3-V1	1.288	25.77	24.98
C3-V3	1.477	24.99	23.98
C3-V4	1.431	25.22	24.35
C3-V5	1.288	25.01	24.32
C3-V6	1.342	25.14	24.24
C3-V8	1.288	25.38	24.38
C3-V10	1.613	24.21	23.35
C4-V2	1.272	25.76	25.17
C4-V4	1.415	25.42	24.76
C4-V6	1.283	25.47	24.58

$\alpha_V \log P + \beta_V$
 $dpc_v = \ln(M_V, m_V, A_{\{V,MW\}})$

calculate

average dpc_v