

HW 4, #3

Distance to NGC 4589 using GCLF. See histogram of apparent magnitudes of globular clusters in "gclf-ngc4589.png."

$$\text{app mag of peak } m_V \approx 24.2$$

Lee et al. adopt

$$\text{abs mag of peak } M_V = -7.66$$

Based on this data, we would derive

$$(m-M) = 31.86 \quad \text{for us}$$

but Lee et al. find

$$(m-M) = 32.06 \quad \text{by Lee et al.}$$

Why is our value smaller than that of Lee et al.?

At least two reasons:

- 1) we did not correct for extinction
- 2) " " " " " incompleteness