

Create Catalog - for each Galaxy - RA_{new}^{k} --

proper motion $\rightarrow 20 \times 20$ deg of sky - intensity $\overset{0}{\circ}$ encircling of stars.

\bullet $np.genfromtxt?$

$dat = np. \text{---} ('test.txt', names = \text{---}, dtype = \text{---})$

lib: astropy.time /
func: time \rightarrow myid \rightarrow years

64 bit int $> 48,$
18, 42,

$np.save('test.npy', dat)$

$dat = np.load('test.npy')$

$obj = dat['obj_id'] = 12 \text{ ---}$
 $print dat['ra'][obj]$

$print np.median(dat['ra'][obj])$

(---)
 $delta-ra-ik dat['ra'][obj]$
 $= np.median(dat[\text{---}])$

$plt.clf(); plt.hist$

$delta-ra-ik$

$d[obj]$

$np.unique(dat['obj_id'])$

$unique-gal = np.ung \rightarrow \text{---}$

saving \rightarrow