

# ASTRO589

Hw2

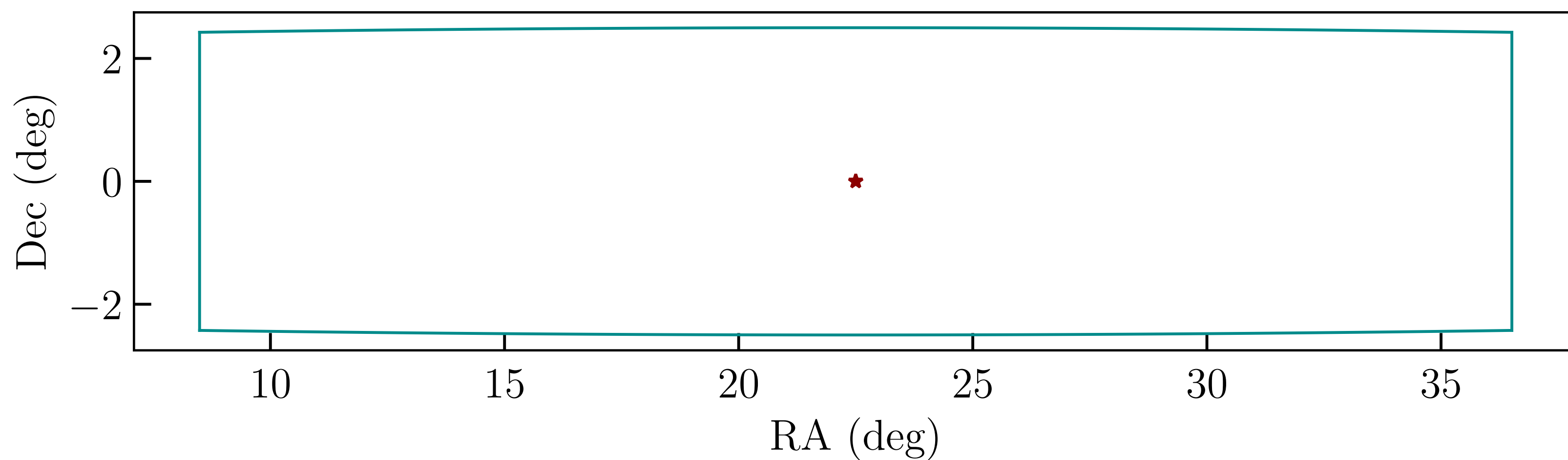
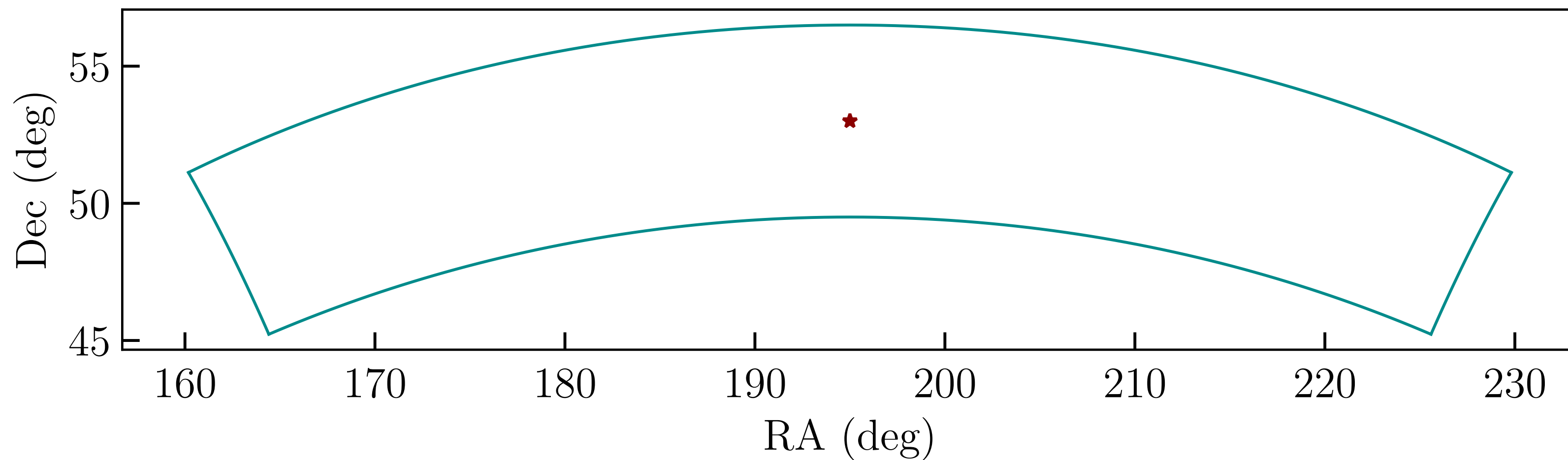
# Question

- (a) HETDEX Spring field is a  $42^\circ \times 7^\circ$  footprint around (R.A., Dec.) =  $(13^{\text{h}}, 53^\circ)$ , and the Fall field is a  $28^\circ \times 5^\circ$  footprint around (R.A., Dec.) =  $(1.5^{\text{h}}, 0^\circ)$ . Plot the survey boundaries in (R.A., Dec.) plane.

(b) The central coordinates of IFUs can be parametrized by  $(L, M) = (100''n + 50'', 100''m + 50'')$  with two integers  $n$  and  $m$ . Using the layout for 78 IFUs in the HETDEX wiki page, plot the footprints of IFUs when the HET points at R.A. =  $13^{\text{h}}$  and Dec. =  $57^\circ, 55^\circ, 53^\circ, 51^\circ$ . Plot them for both EAST track and WEST track.

Repeat the plotting for R.A. =  $1.5^{\text{h}}$  and Dec. =  $3^\circ, 1^\circ, -1^\circ, -3^\circ$ .

# Survey boundary



# IFU distribution

Spring field

Fall field

