

Abstract Submitted  
for the TSS21 Meeting of  
The American Physical Society

**Extension of local spiral structure based on massive OB-stars to Gaia EDR3** WILLIAM CHISHOLM, LOUIS STRIGARI, Texas AM University — Gaia Early Data Release 3 provides precise parallaxes for a large sample of massive OB-stars. This precise astrometry allows for an investigation of local Milky Way spiral structure. We use a compiled list of OB-stars in the local galactic arms containing astrometric solutions derived from Gaia DR2, and we crossmatch given Gaia DR2 sources to find Gaia EDR3 counterparts. Additionally, a crossmatch with Hipparcos was performed. We have compiled a list of 250 O-sources and 4,000 B-stars with positions in the galactic Cartesian frame. The improvements on the accuracies of these sources substantiate previous analysis of local spiral structure.

William Chisholm  
Texas A  
M University

Date submitted: 13 Mar 2021

Electronic form version 1.4