

Abstract Submitted
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Science with a Complete Catalog of Galactic HII Regions LOREN
ANDERSON, West Virginia University — HII regions are the ionized gas spheres
that surround high mass stars larger than about 10 times the mass of the Sun. Such
stars are enormously luminous, but are rare compared to lower mass stars. HII
regions are found almost exclusively in spiral arms and are short-lived; they reveal
the locations of high mass star formation in the present epoch. The high luminosities
of massive stars in turn allow us to detect the emission from HII regions across the
entire Galactic disk. They are one of the only objects for which we can create a
complete Galactic sample. In this talk I will describe the creation of our sample
of Galactic HII regions using data from the WISE satellite and our followup radio
observations. I will also describe our recent work on Galactic structure and the
Galactic star formation rate.

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