

SPIRAL STRUCTURE AND AGE DISTRIBUTION OF THE H II
REGIONS IN THE MILKY WAYHoracio A. Dottori^{1,3} and Marcus V. Copetti^{2,3}

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ABSTRACT. Radioastronomical measurements giving the ratio $R = V_{\text{He}^+}/V_{\text{H}^+}$ were used to determine the age of galactic H II regions with ionization parameter $U = U_{\text{Orion}} = 65 \text{ pc cm}$. Models of evolution of R vs. age show that even when the well known gradient of metallicity is taken into account, a difference arises among the histogram of ages of the three analyzed arms. The Car-Sag structure is younger than inner Scutt-Crux-Norma and the outer Per-Orion spiral arm.

Key words: GALAXY-STRUCTURE — NEBULAE-H II REGIONS

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