

# Molecules and planets in the outer Galaxy: is there a boundary of the Galactic Habitable Zone?

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## (Small) Planet frequency around metal-poor stars

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The determination of planet occurrence rates around stars in the iron-poor regime is a relatively underexplored area of investigation in the exoplanet field. Yet, measuring observationally the critical metallicity below which planet cannot form constitutes a crucial input to planet formation theories, and it is key for gauging the galactic epoch at which the formation of any planets started. I will briefly outline the theoretical expectations for planet formation in low-metallicity environments. I will then discuss the outcome of occurrence rate calculations aimed at probing the metallicity limit beyond which planet formation is predicted to be suppressed, with a particular focus on the small planet population.

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