

## **Extremely Metal Poor Galaxies: Spatially Resolved Dust Properties As Revealed By Herschel**

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The understanding of the interstellar medium (ISM) in the low-metallicity environment is crucial to constrain formation of stars and galaxies of the first generation. The local extremely low-metallicity galaxies (XMPGs) with  $Z < Z_{\text{sun}}/10$  offer the unique laboratory with nearly metal-free environment that mimics the condition in the early universe. Previous infrared studies have focused on their integrated properties due to their small sizes and faint brightness. The general conclusion is that they show dramatic different ISM properties from more metal-rich galaxies, and that a large diversity in the properties is also seen among XMPGs alone. In this paper, we will present our recently acquired spatially-resolved images of three nearby XMPGs at multiple bands (70-500  $\mu\text{m}$ ) through Herschel Space Observatory. By modeling the full IR SEDs (Spitzer+Herschel), I will highlight the derived dust properties of individual regions in XMPGs and their relations to other local properties. By combining IR data with those at other wavelengths, I will also discuss some implications for star formation at extremely low metallicity to evaluate possible roles of dust in low-metallicity star formation.