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Deblending Interacting Galaxies using SCARLET ASHLEY MARTSEN, JEYHAN KARTALTEPE, MICHAEL LAM, FRED MOOLEKAMP, Rochester Institute of Technology — Being able to seperate the light from two merging galaxies is important to being able to study the galaxies individually, as well as determine if the galaxies are physically merging or just visually overlapping. This becomes more important at higher Redshifts as the details become harder to make out. There are multiple ways to deblend these galaxies, I used a program called SCARLET to do so. SCARLET uses multiple wavelengths to model the morphology and SED of a given image, to create a model that more accurately accounts for the features of the image given. This allows the model to overlap galaxies, which many common deblending methods do not do. It also takes into account the differences in the galaxies and captures the different wavelengths produced in different areas of the galaxies. All this allows for each of merging galaxies to be separated and analyzed individually, giving better understanding of the galaxies involved.

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