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Mirage Sources and Large Offsets: Interconnected Phenomena in Asymmetric Diffusion and projection effects

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we show that a large asymmetric halo may be mis-identified as multiple mirage sources, and asymmetric diffusion could lead to a very large offset between the injection site and the identified halo. We add background noise into the region of interest and use statistical method as is used by experimentalists to identify the sources. We utilize the concept of asymmetric diffusion to elucidate several observed sources that were previously challenging to interpret. Our model offers intuitive explanations for these observations and has the potential to aid identification of a broad range of sources.

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