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Rogue vs. Wide-Orbit Planets with Euclid

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The Euclid Galactic Bulge Survey (EGBS), conducted in late March 2025, will play a crucial role in maximizing the number of precise mass and distance measurements for Roman microlensing events. These observations can also be used to constrain the physical parameters of any microlensing event occurring within the survey fields.

An open question remains: can these data help us distinguish between free-floating planet (FFP) candidates and wide-orbit planets?

In this work, I will present an analysis of historical FFP candidates captured within the EGBS fields. I will also discuss methods to use these observations to search for possible host stars in wide orbits, technical solutions to outstanding challenges related to the analysis of these data and, thereby improving our understanding of the true nature of these candidates.

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