

NEWLY DISCOVERED BINARY CENTRAL STARS OF PLANETARY NEBULAE FROM GAIA AND GROUND-BASED FOLLOWUP

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Gaias precise photometry and repeated scanning make it a powerful tool for detecting variability across the whole sky. In planetary nebula central stars (CSPN), short-period photometric variability can be indicative of an unseen binary companion, whether through irradiation, eclipses, or tidal distortion effects. Discovering these systems - a valuable probe into the common envelope process - has been largely the result of painstaking ground-based monitoring in previous decades. With Gaia, we are able to recover most of the known close binary CSPN population by using Gaias photometric uncertainty as a proxy for variability. Not only that - we also uncover a large set of new candidate variables, which we expect to contain previously unknown binary systems. We show our method and approaches to deriving a clean candidate sample, and present new results from our ground-based campaign of followup confirmatory photometry.