The Beginnings and Ends of Double White Dwarfs

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Uncovering the population of eclipsing double white dwarfs with ZTF

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The Zwicky Transient Facility (ZTF) is in the process of obtaining well sampled lightcurves of all stars in the Northern hemisphere. In this sample of billions of lightcurves, we can expect to find on the order of a hundred eclipsing double white dwarfs. We are in the process of systematically searching the ZTF lightcurve for these systems, both by doing targeted searches as well a general search using machine learning classifiers. Initial results are promising; we have detected a handful of eclipsing systems and sensitive to cooler and more compact eclipsing double white dwarfs that have currently been found. I will present an overview of our search for eclipsing double white dwarf in ZTF data, present the eclipsing double white dwarf systems found so far, and discuss how ZTF can be used to study the population of double white dwarfs.

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