

Finding magnetic cataclysmic variable stars with Fink

jeudi 17 juillet 2025 11:00 (30 minutes)

Magnetic cataclysmic variable stars are rare close binary systems in which matter from a main sequence star accretes on a strongly magnetized white dwarf. This presentation will introduce the characteristics of these objects and show the development of a module within Fink designed to find magnetic cataclysmic variable stars in the Zwicky Transient Facility alert stream, in collaboration with the Fink Cataclysmic Variable team from Brazil. The module is based on a nearest neighbors algorithm using lightcurve statistical features which characterize luminosity variability of celestial bodies. Accuracy tests and first results show promising performances for future detections. Difficulties encountered in real-time implementation, as well as changes and thoughts on future LSST implementation will also be discussed.

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Classification de Session: Science