POSTER

ABSTRACT

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Fast Algorithms for Detection of Significant Spatial Overdensities

Data mining astronomy is becoming an increasingly important discipline with the advent of wide-field surveys in the optical and near-IR. Based on pattern recognition technologies, statistical and mathematical methods, data mining is the tool of choice for sifting through large amounts of CCD images/data, one of the recent successes being the systematic mining of SDSS photometric catalogues to locate fully resolved, optically elusive satellite galaxies in the Milky Way halo. The poster presents the results from a comparative, quantitate study of a number of fast data mining algorithms suitable for detection of significant spatial regions of e.g stars or galaxies with high scores according to some density measure.