

Object classification in Big Astronomical surveys by Self Organizing Maps (SOM). Application to the Alhambra survey.

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Abstract

Self-Organizing Maps can effectively assist researchers in the process of the analysing information presented in extended and complex databases by reducing the dimensionality of the sample to a number of prototypes in an unsupervised fashion. We have used the available information on the spatial size of photometric images available in Alhambra archive to label the objects between point-like (stars and qso) and extended objects. We also crossmatched the astrometry with Simbad database and found coincidences for about 15% of the objects. By comparing results, we are able to constrain the physical nature of the prototypes in each of the neurons clustered by our SOM. (See poster).

Acknowledgments

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References

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