

## AISSAI Anomaly Detection Workshop



ID de Contribution: 26

Type: Non spécifié

# Looking for unique objects with excess UV emission in modern large-scale sky surveys

*mardi 5 mars 2024 12:00 (25 minutes)*

Selection of extreme objects in the data from large-scale sky surveys is a powerful tool for the detection of new classes of astrophysical objects or rare stages of their evolution. The cross-matching of catalogues and analysis of the color indices of their objects is a usual approach for this problem which has already provided a lot of interesting results. However, the analysis of objects that are found in only one of the surveys, and absent in all others, should also attract close attention, as it may lead to the discovery of both transients and objects with extreme color values. Here we report on our study aimed at the detection of objects with significant UV excess in their spectra by cross-matching of the GALEX all-sky catalogue with the data from optical large scale experiments, especially from the Dark Energy Survey, and analyzing the ones visible in GALEX only, or having extreme UV to optical colors. We describe the methodology for such investigation, discuss the obstacles and artefacts that may mimic such extreme objects, and present the results of the study covering the significant part of the Southern sky.

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**Classification de Session:** Contributed