



# MACHINE LEARNING FOR ASTROPHYSICS

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## Improving ML training sets with Active Learning in Fink

*Tuesday, 9 July 2024 16:30 (20 minutes)*

Current surveys are detecting thousands of supernovae (SNe) but only a small percentage is able to be classified using spectroscopy. To harness their full power, many surveys are now classifying SNe using ML algorithms. However, these algorithms rely on training sets which are usually built from spectroscopically classified SNe. In this talk, I will present an Active Learning recommendation system built to improve training sets for early type Ia SNe classification. This system is currently deployed in the Fink broker and is applied to ZTF data. I will present how our recommendation system can select the most promising candidates for spectroscopic follow-up and how our evolving training set improves the algorithm performance. I will conclude with a projection of the impact of this system in the era of the Vera C. Rubin Observatory LSST.

**Presenter:** MÖLLER, Anais

**Session Classification:** Time domain