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## **AI in the SKA Era: learning semantically meaningful classification targets for radio astronomy**

*Wednesday, 26 October 2022 09:30 (30 minutes)*

The expected volume of data from the new generation of scientific facilities such as the Square Kilometre Array (SKA) radio telescope has motivated the expanded use of semi-automatic and automatic machine learning algorithms for scientific discovery in astronomy. In this field, the robust and systematic use of machine learning faces a number of specific challenges, including both a lack of labelled data for training (paradoxically although we have too much data we also don't have enough) and an inheritance of abstracted and sometimes subjective classification terminology. In this talk I will discuss our recent work using language models to derive semantic features that can be mapped to astrophysical target classes using non-technical language. This method is domain-agnostic and publicly available, and we hope that it may also prove useful for other scientific fields where expert data labelling is otherwise costly.

**Experiment context, if any**

**References**

**Significance**

**Presenter:** SCAIFE, Anna (University of Manchester)

**Session Classification:** Plenary