

Overview of ML for Gaia

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The Gaia space telescope measures the position and proper motion of a billion stars in the neighborhood of the Sun. This dataset contains stellar streams, tidal debris, and other structures that can cast light on the structure of the Galaxy, its merger history, and its dark matter component. I review the machine learning approaches – including classifiers, normalizing flows, and anomaly detection – which have been used to understand the Gaia dataset, and possible directions of future work of interest to the machine learning and particle physics community.

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Session Classification: Beyond Jets