Contribution ID: **42** Type: **Invited review**

How is deep learning useful to understand the physics of galaxies?

Friday 28 May 2021 11:15 (40 minutes)

As available data grow in size and complexity, deep learning has rapidly emerged as an appealing solution to address a variety of astrophysical problems. In my talk, I will review applications of supervised, unsupervised and self-supervised deep learning to several galaxy formation related science cases, including basic low level data processing tasks such as segmentation and deblending, anomaly detection to more advanced problems involving simulations and observations. I will try to emphasize success, failures and discuss promising research lines for the future.

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Session Classification: Morning 2

Track Classification: Images