



Contribution ID: 31

Type: **Talk**

## Deep learning in astroparticle physics

*Tuesday, 1 February 2022 09:15 (45 minutes)*

In the past few years, deep-learning-based algorithms have been extraordinarily successful across many domains, including computer vision, machine translation, engineering, and science. Also, in physics, applications are accumulating due to the need for fast and precise algorithms that are able to exploit huge amounts of data. So, could it even become a new paradigm for data-driven knowledge discovery?

In this contribution, we introduce the fundamental concepts of deep learning, review the potential of this emerging technology, and illustrate the wide variety of possible applications in the context of particle and astroparticle physics.

Finally, we present novel approaches in the field and discuss future applications.

### Type of Contribution

talk

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**Session Classification:** Tuesday