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## **Scattering transforms, recent applications in astrophysics and cosmology**

*Wednesday, June 29, 2022 2:00 PM (1 hour)*

New statistical descriptions related to the so-called Scattering Transform recently obtained attractive results for several astrophysical applications. These statistics share ideas with convolutional neural networks, but do not require to be learned, allowing for a direct characterization of interactions between scales in non-linear processes. In this talk, I will present these statistical descriptions, and give an overview of their recent successful applications to astrophysics. After highlighting in particular the results that have been obtained on LSS studies, I will also discuss the ongoing promising work on components separation.

**Presenter:** ALLYS, Erwan