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Type: **Talk in a parallel session**

## **Convolutional Neural Network and Soprano: computing numerically expensive models in the blink of an eye**

*Friday, 12 July 2024 17:20 (20 minutes)*

I will discuss the use of machine learning and more specifically of convolutional neural network (CNN) to enable fitting of blazar (or other objects) SEDs with numerically costly models. In particular, I will describe the necessary ingredients, the numerical approach and tools, the setup of the neural network and the training steps. Finally, I will discuss future plans and improvements.

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**Session Classification:** Machine learning in astronomy: AGN, transient events, cosmology and others

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