IV International Workshop "Data life cycle in physics", DLC-2020

Contribution ID: 22

Type: not specified

## Reconstruction radio signals from air-showers with autoencoder

Tuesday, June 9, 2020 9:45 AM (15 minutes)

One of the main challenges related to the measurements of air-shower radio emission is the high background. Plenty of natural and anthropogenic RFI as well as stationary background distort air-shower pulse. Standard methods based on signal-to-noise ratio lead to increasing the threshold of air-shower detection. For extending the energy range towards lower energies we perform data denoising using autoencoder, which is a deep neural network trained in order to decrease the amplitude of the noise, meanwhile keeping useful signal in the trace. We describe our method, present the results of reconstruction and discuss further steps in this direction.

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Session Classification: Session 3