



Contribution ID: 37

Type: **Talk**

End-to-end Optimization of an Array of Cherenkov Detectors

Monday 2 September 2024 11:20 (20 minutes)

We describe a software pipeline that models atmospheric gamma and hadron showers and their detection and reconstruction by an array of Cherenkov detectors on the ground, as well as the calculation of a utility function aligned with the scientific goals of the SWGO experiment. The variation of the utility with the position of each detector on the ground allows to perform stochastic gradient descent to an optimal layout. This epitomizes the concept of co-design for future experiments in fundamental science.

Internet talk

No

Is this an abstract from experimental collaboration?

No

Name of experiment and experimental site

SWGO

Is the speaker for that presentation defined?

Yes

Details

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