

Montenegro, Budva, Becici, 25 September - 29 September 2017



Contribution ID : 213

The development on HYBRILIT of the Machine-learning algorithms for identification and separation of the neutron and gamma-ray signals obtained from the DEMON detector

Friday 29 Sep 2017 at 11:40 (00h15')

Content :

We apply several machine-learning (ML) algorithms for identification and separation of the neutron and gamma-ray signals coming from the DEMON (DEtecteur MOdulaire de Neutrons) detector. The ML-predictions have been contrasted with the results obtained within a standard method based on an integral-area scheme. In the situations where the standard method fails a properly trained ML-algorithm provides more adequate predictions and, therefore, performs much better.

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Session classification : Computations with Hybrid Systems (CPU, GPU, coprocessors)

Track classification : --not yet classified--

Type : Sectional