

Session Program

Feb 19 - 21, 2018

Big Data Science in Astroparticle Research - HAP Workshop

Deep Learning

RWTH Aachen University SuperC
RWTH Aachen University Templergraben 57, 52062 Aachen phone:0241 8090801

Mon, February 19

2:00 PM

Deep Learning

Session |

Location: RWTH Aachen University SuperC, RWTH Aachen University Templergraben 57, 52062 Aachen phone:0241 8090801

14:00 – 14:10

Welcome and organizational matters

Speaker

Prof. Martin Erdmann

14:15 – 15:45

Tutorial Deep Networks: Introduction, Fully-Connected, Convolutional Architectures

Speaker

Mr Yannik Rath

3:45 PM

4:15 PM

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16:15 – 17:45

Tutorial on Adversarial Generative Networks, Wasserstein distance

Speaker

Mr Jonas Glombitza

6:15 PM

Tue, February 20

9:00 AM

Deep Learning

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09:00 – 09:15

Welcome Message of the Vice-Rector for Research and Structure

Speaker

Prof. Rudolf Mathar

09:15 – 09:55

DeepJet: jet classification with the CMS experiment

Speaker

Dr Markus Stoye

10:00 – 10:15

Application of machine learning methods to H.E.S.S. data analysis

Speaker

Dr Idan Shilon

10:20 – 10:35

Event Reconstruction in IceCube using Deep Learning Techniques

Speaker

Mr Mirco Huennefeld

10:40 AM

11:10 AM

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11:10 – 11:50

Efficient Similarity Search and Analysis

Speaker

Dr Christian Beecks

11:55 – 12:10

Generating and refining particle detector simulations using the Wasserstein distance in adversarial networks

Speaker

Mr Lukas Geiger

12:15 – 12:30

HexagDLy - Hexagonal Convolutions with PyTorch

Speaker

Mr Tim Lukas Holch

12:35 – 12:50

Deep machine learning implementation in FPGA

Speakers

Dr Michele Caselle, Mr Weijia WANG

1:00 PM

4:30 PM

Deep Learning: 1-2 Transparencies

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16:30 – 16:40

Investigating deep convolutional autoencoders to mitigate systematic differences between data and simulations

Speaker

Dr Stefan Geißelsöder

16:45 – 16:55

Using Deep Learning to optimise a SUSY search at CMS

Speaker

Dr Adam Elwood

5:00 PM