News

Lorenzo Moneta, Markus Stoye, Paul Seyfert, Rudiger Haake,

IML-session 1.2.2019
3rd IML workshop open for registration & abstracts

3rd IML Machine Learning Workshop

15-18 April 2019
CERN
Europe/Zurich timezone

Overview
Call for Abstracts
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This is the third annual workshop of the LPCC inter-experimental machine learning working group. As usual, it will take place at CERN, and everyone interested in ML for HEP is invited! While we encourage you to join us at CERN if possible to maximally benefit from this event, remote participation will be supported via the Vidyo and CERN webcast services.

The event will take place from April 15-18, 2019. There will be keynote talks from invited (non-HEP) ML experts, an industry session, hands-on tutorials, and of course, talks by people in HEP working on ML.

We encourage you to submit abstracts on your work! The deadline for abstract submission is March 1, 2019.

We look forward to welcoming you or hearing from you during the event!

(The agenda is preliminary and still under development.)

https://indico.cern.ch/event/766872/overview
Your presentations and attendance make the workshop unique. Last year we had 300 participants 😊 and more than 30 physics contributions!

Please send abstracts by 1st of March

50 registered already today!

High profile AI experts, and industry and tutorials will complement the submitted contributions

On popular demand we invited more external expert speakers and from science and industry. We also have a full day with hands-on tutorials jointly organized by academia and industry. Browse the developing agenda for more details.
Two physicist that have become top players in ML are coming the workshop

Prof. Max Welling

Among impressively much great work one highlight was coming up with the variational autoencoder "Auto-Encoding Variational Bayes".

Prof. Tali Tshiby

Statistical physicist brings “phase transitions” and much more to DNN learning theory 😊. Deep Learning and the Information Bottleneck Principle
Other workshops and school

- **ACAT** in Saas-Fee (Switzerland), March 11-15, 2019
- “Connecting the Dots” in Valencia (Spain), April 2-5, 2019
- “How to do ultrafast DNN inference on FPGAs” at the University of Zurich (Switzerland), February 6, 2019
- “Deep Learning in Natural Sciences” in Hamburg (Germany)
- “Artificial Intelligence for Science, Industry and Society” in Mexico City, October 21-25, 2019, CERN, CERN openlab, OECD key organizers!
- “The Fifth Yandex Machine Learning summer school”, 1-10 July 2019 at DESY
Few contributed as much as Steven to IML, *co-founder* and ATLAS representative. One of five but >> 20% of IML workload! Many thanks, it has been pleasure to work with you!
IML coordinators

NEW ATLAS representative

David will give a talk in today's session
Todays agenda

**IML Machine Learning Working Group: open topic**

**Friday 1 Feb 2019, 15:00 → 18:00** Europe/Zurich

**40-S2-C01 - Salle Curie (CERN)**

**Description**
Agenda under development. If you like to present, please contact iml.coordinators@cern.ch

**Videoconference Rooms**

**IML-MachineLearning-WG**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Duration</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00</td>
<td>Introduction and news</td>
<td>10m</td>
<td>David Rousseau (LAL-Orsay, FR), Lorenzo Moneta (CERN), Markus Stoye (Imperial College (GB)), Paul Seyfert (CERN), Rudiger Haake (Yale University (US))</td>
</tr>
<tr>
<td>15:10</td>
<td>Reinforcement Learning for Jet Grooming</td>
<td>20m</td>
<td>Frederic Alexandre Dreyer (Oxford)</td>
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<tr>
<td>15:30</td>
<td>Novelty detection</td>
<td>20m</td>
<td>Li Yingying</td>
</tr>
<tr>
<td>15:50</td>
<td>Status on the Tracking Machine Learning challenge</td>
<td>20m</td>
<td>David Rousseau (LAL-Orsay, FR)</td>
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</tbody>
</table>

Enjoy the talks!