

UF | UNIVERSITY of
FLORIDA

IML

SQFT

IML Machine Learning Workshop

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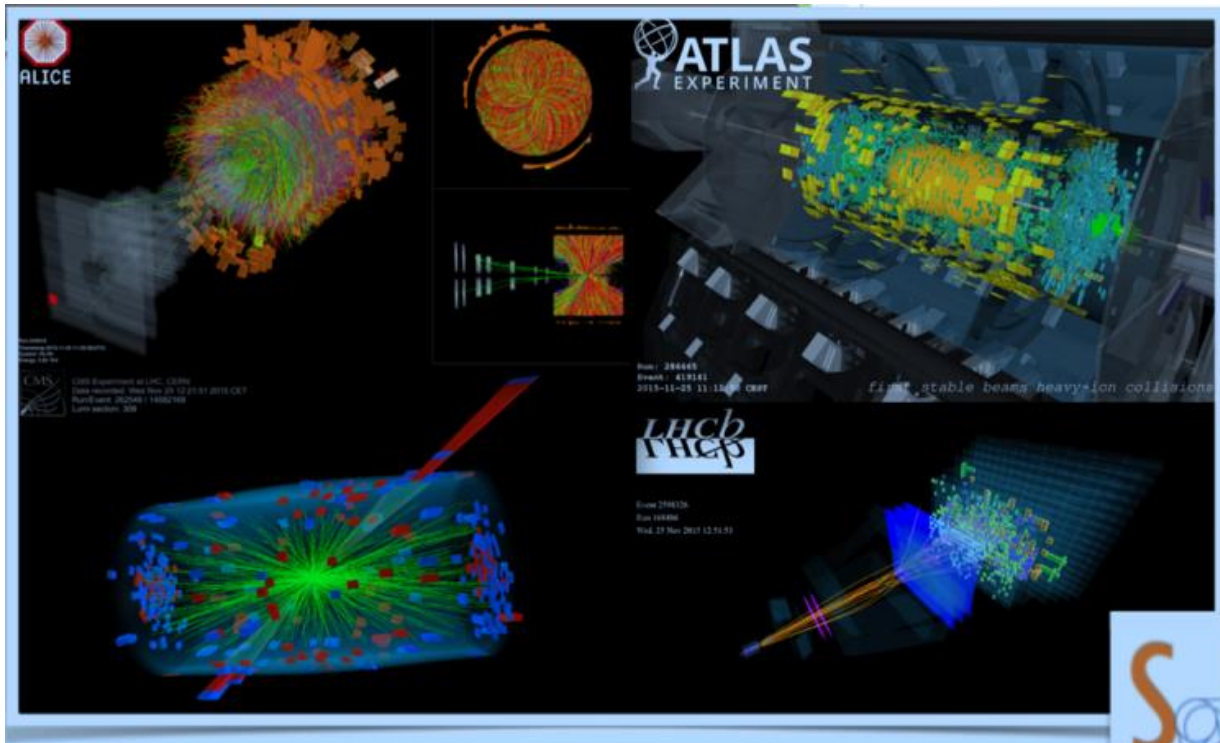
Michele Floris, Lorenzo Moneta

Steven Schramm, Paul Seyfert

LHC PHYSICS CENTRE AT CERN

- **Opening session in Main Auditorium**
- **All others in Bld. 222 Filtration Plant**
- **Reception tonight in Restaurant R1**

IML



- **Machine Learning tools needed significant upgrades**
- **Expertise spread out across HEP experiments**
- **Pockets of collaboration**

- **Inter-experimental Machine Learning Working Group**
 - <http://iml.cern.ch>
- Exchange between particle physics and machine learning communities
- Sharing of expertise among LHC experiments
- Software development and maintenance
- Forum and Education
- **LPCC [Group](#)**
- ~400 members and growing

Recent Topics

Past Meetings

IML Machine Learning Working Group - Parallelized/Distributed Machine Learning Fri, 02/24/2017 - 15:00

IML Machine Learning Working Group - Multiclass and Multiobjective Applications Meeting Wed, 01/18/2017 - 15:00

IML Machine Learning Working Group Meeting - Bayesian Optimization and Generative/Adversarial Models Thu, 12/15/2016 - 15:00

IML Machine Learning Working Group Meeting - Hardware Wed, 11/23/2016 - 15:00

IML Machine Learning Working Group Meeting - Tools Mon, 10/24/2016 - 15:00

IML Machine Learning Working Group Meeting - Software Thu, 09/29/2016 - 15:00

IML Machine Learning WG Meeting - Unsupervised Learning Thu, 08/25/2016 - 15:00

IML Machine Learning WG Meeting - Anomaly Detection Tue, 07/05/2016 - 15:00

IML LHC Machine Learning WG Meeting - Regression Tue, 05/17/2016 - 15:00

IML LHC Machine Learning WG Meeting - Deep Learning Thu, 04/14/2016 - 15:00

CERN Meeting with EFSA Tue, 03/15/2016 - 11:00

IML LHC Machine Learning WG Meeting - Tools Fri, 03/04/2016 - 14:00

IML LHC Machine Learning WG Meeting - Tools Wed, 02/03/2016 - 10:00

Today:

- **Industry-HEP-ML session and Panel**
- **Community White Paper Machine Learning discussion**
- **Reception**

Tuesday and Wednesday:

- **Physics Mini-Workshop on Object Tagging**
- **Machine Learning Software Tutorials: TMVA, scikit-learn, Keras, R**
- **HEP Machine Learning Challenge**

Begins right now

- <https://gitlab.cern.ch/IML-WG/IMLWorkshop2017-Challenge>
- **Teams possible and can use any resources at your disposal**
- **See the above link for rules, info, chat**
- **Challenge ends at 16:00 on Wednesday**

- **LHC Physics Centre**
 - Sponsorship and organization
 - Michelangelo Mangano
 - Michelle Connor
- **LHC experiments:**
 - ALICE, ATLAS, CMS, LHCb
- **Industry experts in Machine Learning**
- **The entire HEP community (i.e. all of you!)**

Thank you

- **Nanie Perrin, Angela Ricci**
- **Stefania Bordoni**
- **Guy Wilkinson**
- **Monica Pepe-Altarelli**
- **Maureen Prola-Tessaur**
- **Marina Cobal**
- **Claudio Bortolin**
- **Eric Feng**

For moving all your meetings for us

Welcome everyone to the IML Workshop