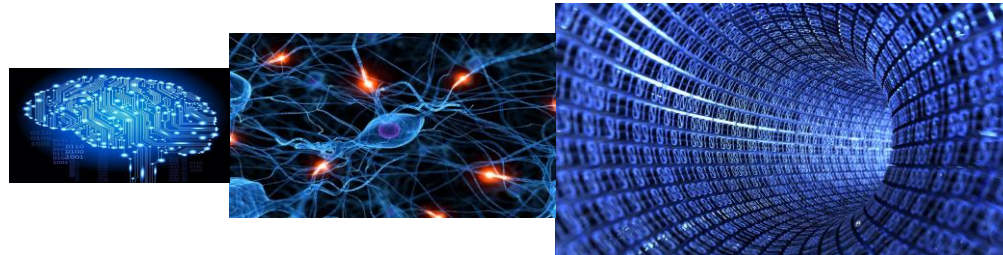


Machine Learning CWP-WG and Charge

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HEP Software Foundation Workshop

January 26, 2017

- CWP-ML [Google Group](#)
- CWP-ML [Google Doc](#)

Yesterday

- **Groups: Pods A, B, C, D**
- **Morning session:**
 - **Discuss charge: come up with questions and challenges**
- **Afternoon session:**
 - **Discuss roadmaps towards the answers**

WG Charge

Scope: Machine Learning algorithms play an important role in many facets of today's HEP data analysis, data-processing and detector applications. Machine-learning tools already form an important part of HEP software. To overcome the challenges related to data-processing and analysis of upcoming very large HEP data-sets, it is important to plan ahead for how HEP machine-learning software and tools develop. **This group will work on both identifying the challenges related to machine-learning software in HEP and proposing possible solutions and a community roadmap towards better HEP-ML software.**

Yesterday

- [Google Doc Pod A](#)
- [Google Doc Pod B](#)
- [Google Doc Pod C](#)
- [Google Doc Pod D](#)

ML WG Group Charge

- **Scope**
- **Challenges and Questions**
- **CWP-ML Google Doc**

- How to use **machine learning** to do more physics within the **existing computing and software budget** and reduce the **processing power, data transfer, storage space and human effort** per unit physics?
- How to keep up with **external software and hardware evolution** in machine learning?

- How to best **engage** the machine learning **community**, develop **interfaces** to external machine learning capabilities and represent data in **formats** useful to the machine learning community
- How do we **train** our community in machine learning?

Plan ahead

- **CWP-ML Part I:**
 - yesterday
- **CWP-ML Part II:**
 - during IML topical workshop in CERN, March 20-22, 2017
- **CWP-ML Part III:**
 - DS@HEP 2017, FNAL May 8-12, 2017