Welcome to the Inaugural School on IT Services

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Why a school on IT Services ?

Science requires computing

Physics research is data and computing intensive

- Huge "data deluge" challenges ahead
- Huge computing challenges ahead
  - *x10* increase
  - Beyond what Moore's law predicts

Computing services for Science have increased complexity

- This school brings together computing users with service managers
- Bi-directional feedback and information flow to improve
  - Productivity of computer users
  - How IT services matches the need for scientific research

Areas of specific interest

Sustainability:

- Hardware efficiency and cost optimisation

- Refactoring, modernising, optimising code

- Operating date centres at full potential

- Fair and sustainable architectures

Leveraging innovations:

- Accelerators like GPUs and TPUs (and FPGAs) in readout chain

- Machine Learning and Deep Learning applied to all stages of analysis

- Storage infrastructures (across multiple research centres)

- Leverage High Performance Computing centres

Preparing possible future paradigm shifts

- Quantum Technology Initiative

- Next Generation Triggers

But, above all…

- **Empowering the future generations**

- **Bringing together top computer users to address common future challenges!**
  - In multiple domains: communication, data science, data management, security, software development, software design, machine learning

Thanks to the dedicated IT service managers who will explain how to "get the best" out of CERN IT services

Thanks to you for your contribution to a shared learning

Enjoy the first CERN School of Computing
on IT Services