Software and Experience with Managing Workflows for the Computing Operation of the CMS Experiment

Flexible and dynamic system

- Handle production of **10s of Billions of MC/data events**
- Driving **200k cores** over heterogeneous computing centers
- Supervise **placement of input data** (primary, secondary)
- Utilize **as many resource as possible** over the grid
- Spreads the load to all possible sites
- Integrates **opportunistic resources** for processing
- Dynamically re-route work to reduce latencies
- Automatically propagates most workflows through production
- Facilitates operation on remedying issues
- Notify users of delays in delivery
- Ground for **even more automation**
- Towards **AI-assisted computing operation**