

System Performance and Cost Modelling in LHC computing

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The increase in the scale of LHC computing expected for Run 3 and even more so for Run 4 (HL-LHC) over the course of the next ten years will most certainly require radical changes to the computing models and the data processing of the LHC experiments. Translating the requirements of the physics programmes into computing resource needs is an extremely complicated process and subject to significant uncertainties. For this reason, WLCG has established a working group to develop methodologies and tools intended to characterize the LHC workloads, better understand their interaction with the computing infrastructure, calculate their cost in terms of resources and expenditure and assist experiments, sites and the WLCG project in the evaluation of their future choices.

This working group started in November 2017 and has about 30 active participants representing experiments and sites. In this contribution we expose the activity and the results obtained so far by the working group and the direction it is taking for the fulfillment of its objectives.

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