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Update on ARM for WLCG

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Over the last 18 months we have investigated the use of the 80-core Ampere Altra for WLCG workloads and have previously reported that for WLCG workloads this ARM-based machine delivers significant energy-savings whilst being comparable in both speed and cost to typical AMD machines. More recently we have extended this work to the 128-core Ampere Altra Max and will present these results for the first time. In the meantime, the installation of a 2000-core Altra ARM-farm at Glasgow has allowed significant in-house ARM resources to be presented on the WLCG for the first time. The facility is being validated by ATLAS, re-running a recent google validation of their simulation workload and running reconstruction in tandem. Looking ahead, Glasgow is in the process of procuring a NVIDIA Grace (ARM-based) processor to characterise its performance (though we expect this to push performance rather than energy-efficiency) and hope to have new results to present on the AMD Bergamo processor available for the meeting.

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