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The LZ UK Data Centre

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LZ is a Dark Matter experiment based at the Sanford Underground Research Facility. It is currently under construction and aims to start data taking in 2020. Its computing model is based on two data centres, one in the USA (USDC) and one in the UK (UKDC), both holding a complete copy of its data. During stable periods of running both data centres plan to concentrate on different aspects of reconstruction and analysis. However, both data centres are expected to be able to handle all aspects of data processing, including user analysis, to provide a failover should one of the data centres be temporarily unavailable.

Unlike the USDC where both storage and processing facilities are located at NERSC, the UKDC uses a distributed approach on GridPP-provided computing resources. The data themselves will be hosted at the Tier-2 at Imperial College London, while their processing and analysis will take place at various UK Tier 2s and possibly other collaborating European institutes.

Considerable effort has gone into providing an intuitive interface to the UKDC, hiding much of the complexity of the underlying infrastructure from the end users.

We report on the setup of the UK Data Centre with an emphasis on the user interface, in addition to the planned interface to the US Data Centre and the experience gained from the mock data challenges.

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