

# The XENON1T Data Distribution and Processing Scheme

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The Xenon Dark Matter experiment is looking for non baryonic particle Dark Matter in the universe. The demonstrator is a dual phase time projection chamber (TPC), filled with a target mass of ~2000 kg of ultra pure liquid xenon. The experimental setup is operated at the Laboratori Nazionali del Gran Sasso (LNGS).

We present here a full overview about the computing scheme for data distribution and job management in Xenon1T. The software package Rucio, which is developed by the ATLAS collaboration, takes over the data handling on connected grid storages which are part of the Open Science Grid (OSG) and European Grid Infrastructure (EGI). A copy on dedicated tape storage at the Centre for High Performance Computing (PDC) is handled by the Tivoli Storage Manager (TSM). Data reduction and MonteCarlo production is handled by CI Connect which is integrated in the OSG network. This job submission system connects resources at the EGI, OSG, SDSC's Comet and the campus HPC resources for distributed computing.

The archived success in the Xenon1T computing scheme is also starting point for its successor experiment XENONnT which starts to take data in autumn 2019.

**Author:** BAUERMEISTER, Boris (Stockholm University)

**Co-authors:** Mr AHLIN, Daniel (Centre for High Performance Computing, Stockholm); Prof. CONRAD, Jan (Stokchholm University); GARDNER JR, Robert William (University of Chicago (US)); GRANDI, Luca (The University of Chicago); RIEDEL, Benedikt (University of Chicago); SHOCKLEY, Evan (U); STEPHEN, Judith Lorraine (University of Chicago (US)); Mr SUNDBLAD, Ragnar (Centre for High Performance Computing, Stockholm); THAPA, Suchandra (University of Chicago)

**Presenter:** BAUERMEISTER, Boris (Stockholm University)

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