

CNAF experience in support of the JUNO distributed computing model

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The Italian WLCG Tier-1 located in Bologna and managed by INFN CNAF provides computing and storage resources to several research communities in the fields of High-Energy Physics, Astroparticle Physics, Gravitational Waves, Nuclear Physics and others. Among them, the Jiangmen Underground Neutrino Observatory (JUNO), devoted to the construction and operation of a neutrino detector located underground in Kaiping, Jiangmen in Southern China, will employ a computing infrastructure geographically distributed in Chinese, Russian, French and Italian datacenters. The detector data rate is expected to be of the order of 2 PB per year, continuously transferred from the detector site to the INFN Tier-1 in Italy. To guarantee the optimal operations among all the aforementioned sites, a series of periodic network and data management challenges have been performed.

In this talk, the technologies involved to set up the cross-continent data transfer (e.g. StoRM WebDAV, EOS, dCache, XrootD, FTS, Rucio) are presented, together their performance.

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