

Running Fermi-LAT analysis on Cloud: the experience with DODAS with EGI-ACE Project

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The Fermi-LAT long-term Transient (FLT) monitoring aim is the routine search of gamma-ray sources on monthly time intervals of Fermi-LAT data.

The FLT analysis consists of two steps: first the monthly data sets were analyzed using a wavelet-based source detection algorithm that provided the candidate new transient sources; finally these transient candidates were analyzed using the standard Fermi-LAT maximum likelihood analysis method. Only sources with a statistical significance above 4σ in at least one monthly bin were listed in a catalog.

The strategy adopted to implement the maximum likelihood analysis pipeline has been based on cloud solutions adopting the Dynamic On Demand Analysis Service (DODAS) service as technology enabler. DODAS represents a solution to transparently exploit cloud computing with almost zero effort for a user community. This contribute will detail the technical implementation providing the point of view of the user community.

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