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Type: **Proposal for Introduction to Software Tools**

## **DARTS: The Data Analysis Remote Treatment Service: AI demo**

*Wednesday 10 April 2024 10:00 (3 hours)*

We present the **Data Analysis Remote Treatment Service (DARTS)** [1,2], an open-source remote desktop service that launches on-demand virtual machines in the cloud, and displays them in a browser. The released environments can be used for scientific data treatment, for example.

DARTS can be deployed and configured within minutes on a server, and can run any virtual machine. The service is fully configurable, supports GPU allocation, is scalable and resilient within a farm of servers. DARTS is designed around simplicity and efficiency. It targets laboratories and facilities that wish to quickly deploy remote data analysis solutions without investing in complex hypervisor infrastructures. DARTS is operated at Synchrotron SOLEIL, France, in order to provide a ready-to-use data treatment service for X-ray experiments.

In the scope of this conference, we shall demonstrate the applicability of the service to provide an AI-centric environment with GPU capability.

[1] <https://gitlab.com/soleil-data-treatment/soleil-software-projects/remote-desktop/>

[2] <https://doi.org/10.21105/joss.05562>

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**Track Classification:** MLC