

EGU22-13002

<https://doi.org/10.5194/egusphere-egu22-13002>

EGU General Assembly 2022

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## **ORBiDANSe: Orbital Big Datacube Analytics Service**

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Datacubes form an accepted cornerstone for analysis (and visualization) ready spatio-temporal data offerings. The increase in user friendliness is achieved by abstracting away from the zillions of files in provider-specific organization. Data-cube query languages additionally establish actionable datacubes enabling users to ask "any query, any time" with zero coding.

However, typically datacube deployments are aiming at large scale, data center environments accommodating Big Data and massive parallel processing capabilities for achieving decent performance. In this contribution, we conversely report about a downscaling experiment. In the ORBiDANSE project a datacube engine, rasdaman, has been ported to a cubesat, ESA OPS-SAT, and is operational in space. Effectively, the satellite thereby becomes a datacube service offering the standards-based query capabilities of the OGC Web Coverage Processing (WCPS) geo datacube analytics language.

We believe this will pave the way for on-board ad-hoc pro-cessing and filtering on Big EO Data, thereby unleashing them to a larger audience and in substantially shorter time.

In our talk, we report about the concept, technology, and experimental results of ad-hoc on-board datacube query processing.