

Project: **1403**

Project title: **Benchmark Dataset for Constraining Trade-Cumuli Feedback with Process Understanding**

Principal investigator: **Geet George**

Report period: **2024-11-01 to 2025-10-31**

Maximum of 2 pages including figures. 9 pt minimum font size.

Our benchmarking dataset efforts benefitted from a boost when all project members met for a one-week workshop in May, 2025 at the International Space Science Institute in Bern, Switzerland. Our team admittedly had to deviate from some original plans and cut down on our ambitions after some of our international members were affected by recent policy changes this year. However, the in-person meeting in May helped us reset our goals and set ourselves a deadline of submitting the benchmark data paper by summer 2026 with interim milestones for individual data entities. I believe we are now on a good path to populate the Swift storage gradually for the final version of the benchmark dataset. The dataset paper is also supported by a review paper of mesoscale processes associated with trade-cumuli and we plan to submit them around the same time, both papers being actively worked on currently. The review paper will also refer to the benchmark dataset here and the data paper describing it.

As mentioned last time, members of our team are processing their contributions with their own resources and collation of their “ready” versions (not final till submission of paper) are being uploaded to DKRZ resources (both Levante and Swift).