## REQUEST FOR ADDITIONAL RESOURCES IN THE CURRENT YEAR FOR AN EXISTING SPECIAL PROJECT

Please email the completed form to special\_projects@ecmwf.int.

| MEMBER STATE:                         | Switzerland  |
|---------------------------------------|--|
| Principal Investigator <sup>1</sup> : | Hanna Joos, Hanin Binder   |
| Affiliation:                          | Institute for Atmospheric and Climate Science, ETH Zürich  |
|                                       |  |
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|                                       |  |
| Other researchers:                    | Dominik Büeler, Maxi Böttcher, Franco Lee, Franziska Scholder-Aemisegger, Heini Wernli, Annika Oertel, Leonie Villiger, Michael Sprenger |
| Project title:                        | Diabatic heating rates and moist tendencies along airstreams associated with different weather systems                                   |
| Project account:                      | SPCHBOJO   |

| Additional computer resources requested for |          | 2023    |
|---|----------|---------|
| High Performance Computing Facility         | (units)  | 600 000 |
| Data storage capacity (total)               | (Gbytes) | 15 Tb   |

This form is available at:

<sup>&</sup>lt;sup>1</sup> The Principal Investigator is the contact person for this Special Project

## Continue overleaf

## Technical reasons and scientific justifications why additional resources are needed

As our special version of the IFS, which provides hourly output of all temperature and momentum tendencies is not yet running on the new system, the simulations related to work package 3 (Stratosphere – Troposphere exchange) in the special project SPCHBOJO "Diabatic heating rates and moist tendencies along airstreams associated with different weather systems" have to be moved to 2023. Franco Lee, a PhD student in our group is working together with Richard Forbes on this problem and we plan to do the first simulations in spring 2023.