



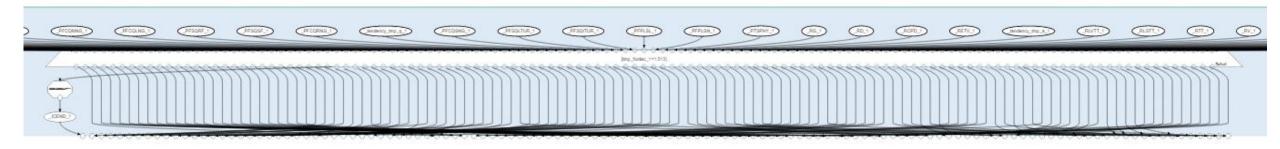






# Fortran frontend prototype

CloudSC application



- Fully parallel SDFG validates correctly in serial mode
- Automation incomplete.







## To\_GPU

#### Existing implementation outdated

- Tested on smaller kernels
- Works well on small kernels
- Not suited for large applications

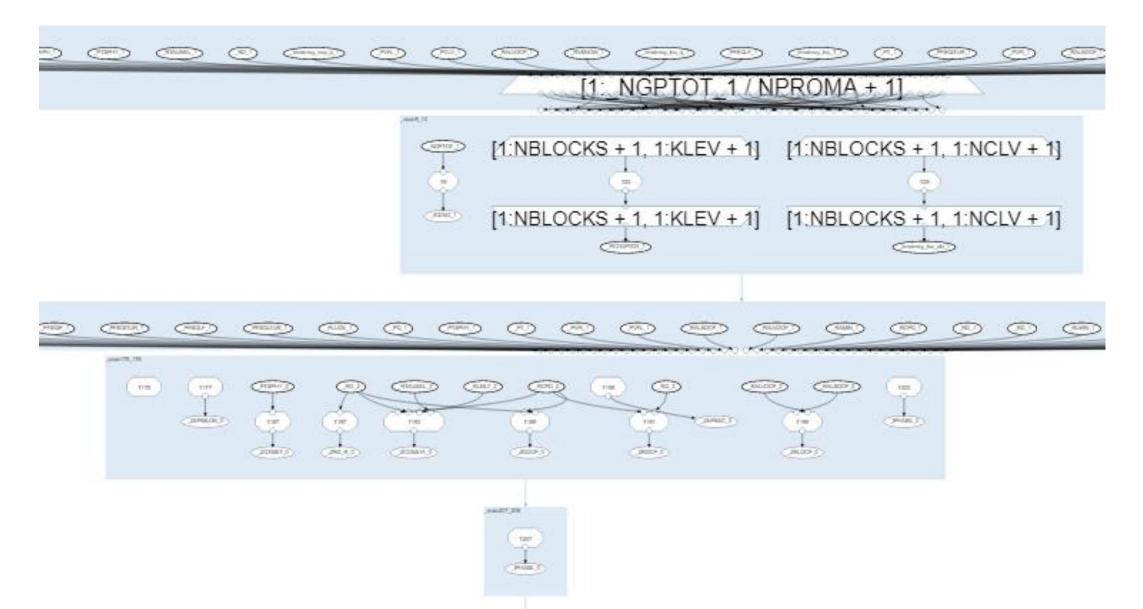
#### Research questions

- Which Maps to offload?
- What data to move?
- Should scalars or tasklets be moved?

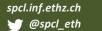




# **Example**









## **Correctness**

## Improve to GPU to handle

- Nested SDFGs
- Scalars
- Single Tasklets

### Additional requirements

- Map Fission
- Heuristic Map Fusion