

Sondrestromfjord Rayleigh LIDAR

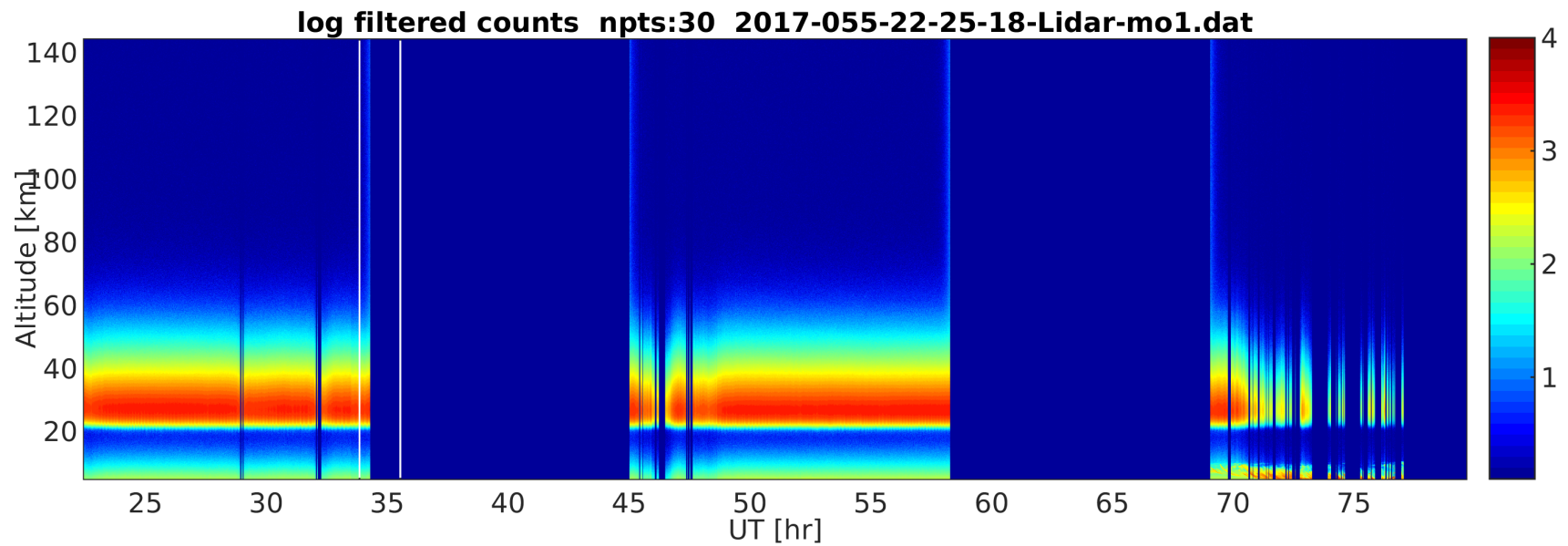
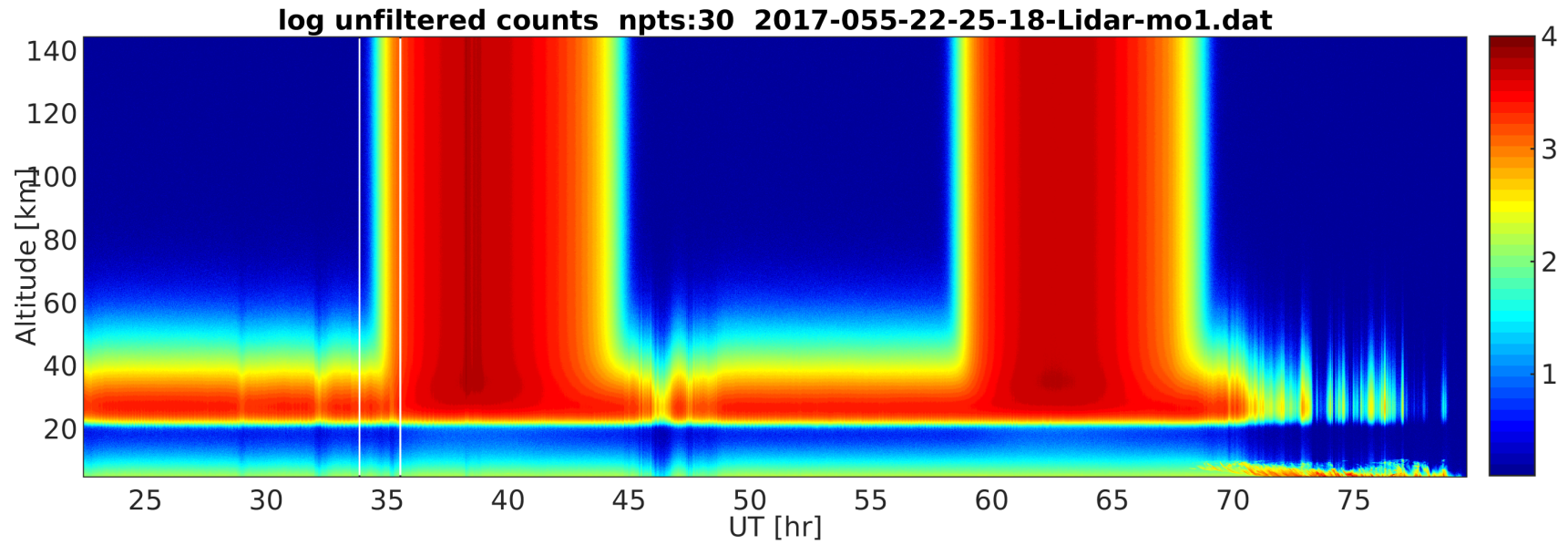
Asti Bhatt
SRI International
NDACC meeting presentation



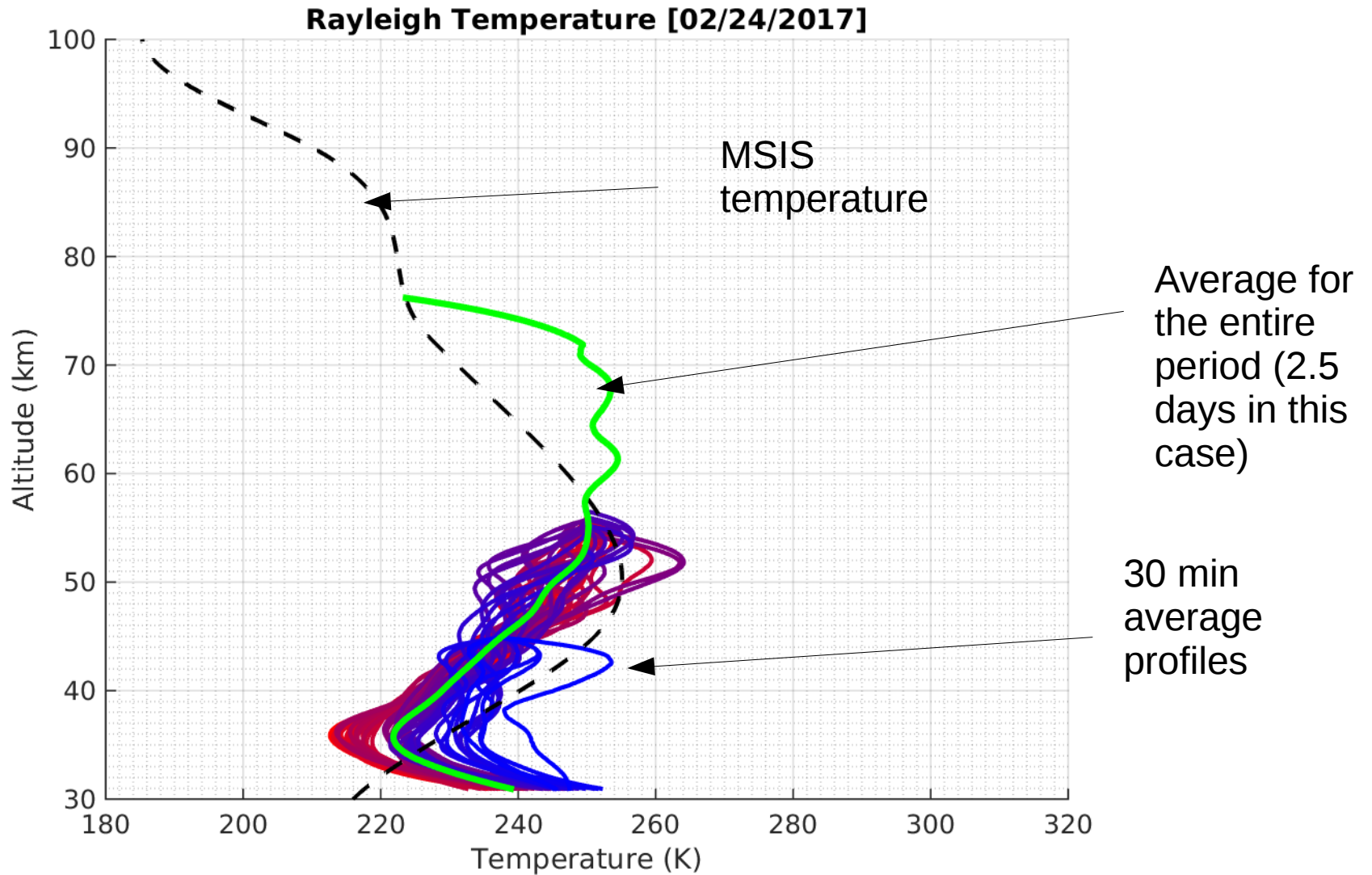
Background

- The Rayleigh lidar at Sondrestrom site operated since 1994 to study the middle atmosphere over Greenland
- Measures scatter from 7-140km and derives temperature profiles between 30-80km altitudes
- 532nm transmitter, Newtonian telescope receiver with 92cm diameter
- Has observed summer stratospheric cloud and polar mesospheric cloud signatures over the years in addition to regular temperature profiles

Raw counts



Temperature profiles



(For NDACC, daily temperature profiles are calculated)

Current and future status

- The Sondrestrom Research Facility, including the lidar, has been decommissioned by NSF
- Last lidar data were obtained in Feb 2017
- Some of the lidar components are scheduled to be transferred to Dr. Jeff Thayer at U. of Colorado, Boulder, the original PI for the lidar

Thank you

- We thank the NDACC community for their support of the Sondrestrom lidar and the hard work of distributing data to wider communities