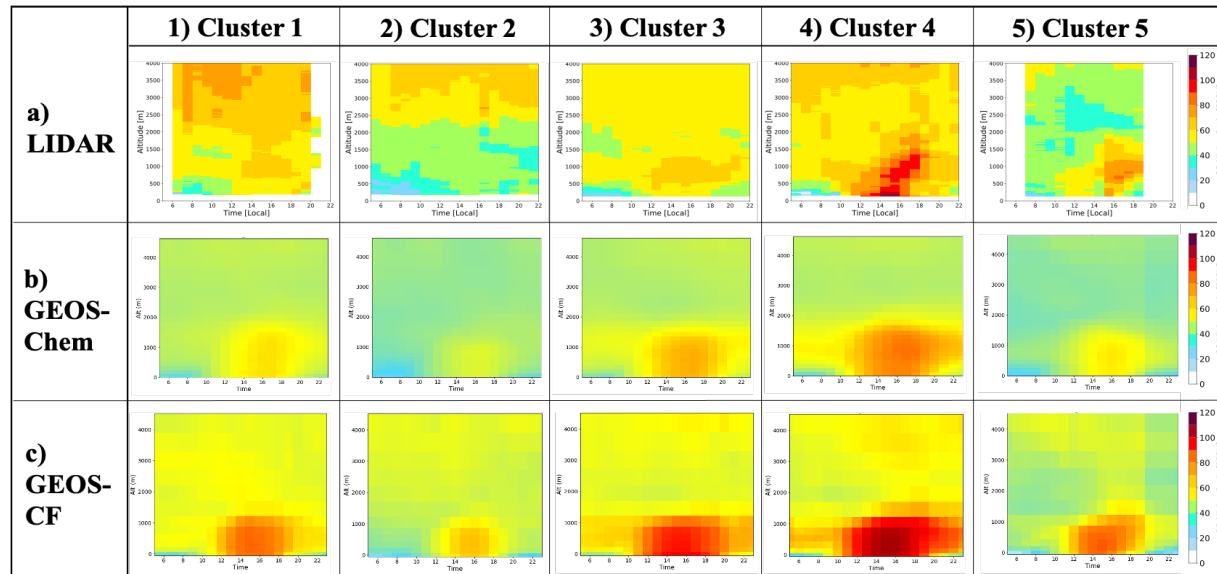


Bernier– Cluster analysis of O₃ lidar measurements & model simulation

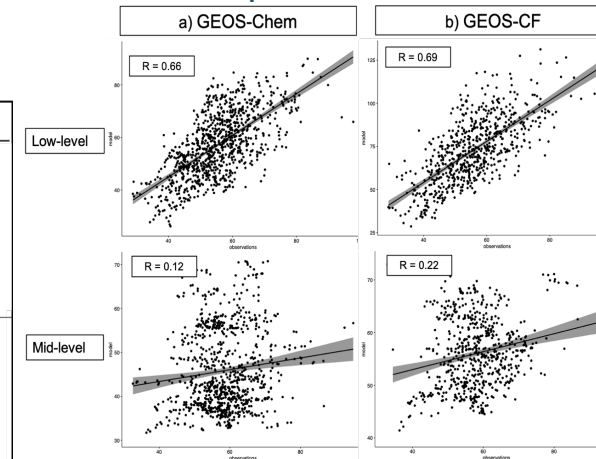


Claudia Bernier, University of Houston
Yuxuan Wang, Timothy Berkoff, Guillaume Gronoff

- Developed a method to cluster multi-dimensional lidar O₃ measurements
- 3 campaigns: OWLETS 1, OWLETS 2, LISTOS
 - Results: **5 Clusters**
- Used clusters to evaluate GEOS-Chem & GEOS-CF model performance
- Clusters help characterize coastal O₃ behavior during test period
- Also allows us to easily highlight best/worst model performance for these cases
- Future work: Use lidar O₃ clusters to investigate pseudo-TEMPO retrievals vs. ideal model simulations to understand potential ability of TEMPO to monitor O₃ over such complex environments



Model performance:



This publication is currently in progress