

Spire Global, Inc.

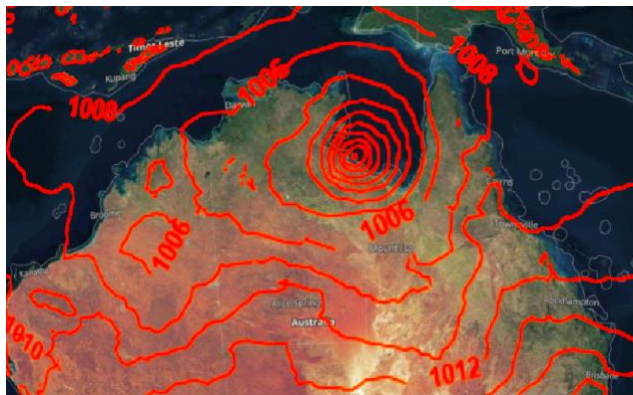
Tropical Storm Prediction Project Internship Opportunity

Project Leaders: Alexander E. MacDonald, Razvan Stefanescu
Period of availability: May to September 2020 (40 hours per week)
Workplace: 1825 33rd St., Boulder Colorado

Spire Boulder Mission: Spire is a satellite company that is developing an exciting new observational system for meteorology. Currently, Spire has over 80 satellites in low Earth orbit taking an observation called Radio Occultation (RO). RO is a promising observation because it is global, has high vertical resolution and gives profiles of temperature and moisture from the boundary layer to the upper stratosphere. We currently have ~ 10,000 RO per day, which are well distributed over the Earth and are developing a global model system to process RO and showcase their value.

Tropical Storm Prediction Project: The purpose of the Tropical Storm Prediction Project (TSPP) is to predict the track of tropical storms globally. The project will involve using models to estimate potential track, and optimization tools to determine the most likely locations of tropical storms out to 10 days (medium range prediction).

Tasks: Your daily tasks include working with weather model data (e.g. GRIB or NetCDF), implementing software for tracking tropical storm vortices and development of software for merging 4-dimensional weather model data. The optimization task includes use of assimilation techniques such as combination of multiple spatial location distributions into an optimal location distribution.



Four day prediction of tropical storm landfall in Australia shown on Spire global model.

Apply: Email resume and letter of interest to shauna.hughes@spire.com by March 30th.