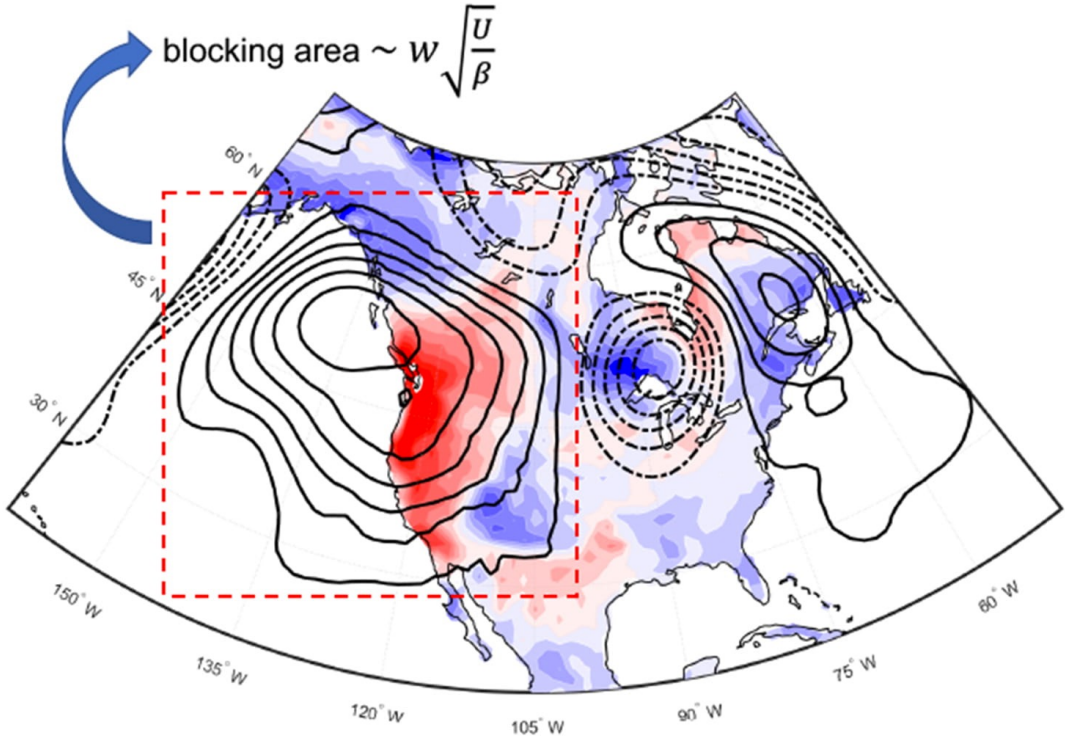
Size of blocking events: Scaling law & future changes

NASA MAP 80NSSC17K0266 (PI: Pedram Hassanzadeh)

- We showed that blocking events will get larger under climate change, particularly in Northern Hemisphere summers
- Larger blocks can exacerbate the impacts of future weather extremes, particularly heat waves
- We derived & validate a scaling law for blocking area *A*, showing that *A* scales with the mean jet's width, speed & latitude
- The scaling law helps with better understanding blocks & better evaluating the models' capabilities to simulate blocking variability



Nabizadeh, Hassanzadeh, Yang & Barnes, *Size of the atmospheric blocking events: Scaling law and response to climate change*, Geophysical Research Letters, 46 (2019)
doi: 10.1029/2019GL084863