

# US-SCAR, Physical Sciences

## U.S. Representatives & Group Scope

Physical processes in ice, ocean, land, water & space



**Kirsty Tinto**  
Cryosphere  
aerogeophysics  
Columbia University



**John Cassano**  
Polar weather and  
climate  
University of Colorado



**Lu Lu**  
Astroparticle physics  
University of Wisconsin-  
Madison

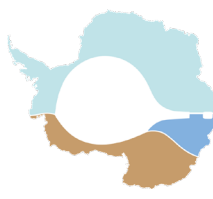
## Critical Issues Being Discussed

- Cohesive constraints on coastal boundary conditions for ice sheet mass balance
  - Co-ordinating international surveys
  - Combining disciplines at focus sites
  - Integrated models and observations
- Developing shared expectations and responsibilities for collaborating teams



## Current Projects/Activities

Scientific research projects:



**INSTANT**  
INSTABILITIES & THRESHOLDS IN ANTARCTICA

Expert Groups:

ANTOS, ASPECT, FRISP, OpMet, SORP, IPICS, ISMASS

Action Groups:

ACA, ANGWIN, RINGS, TATE, EOAG, IMPACT,  
AntArchitecture, PRAMSO

## Future Directions

- How to advance US logistics and science together?
- How to support astronomy/astrophysics community with South Pole needs (CMB-S4)

