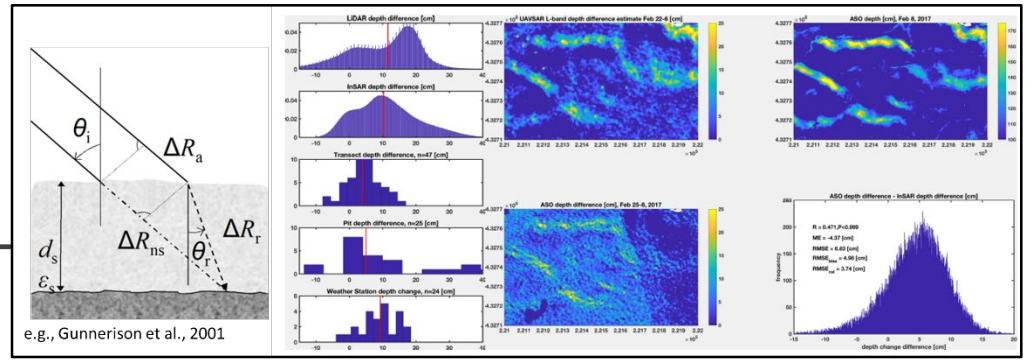
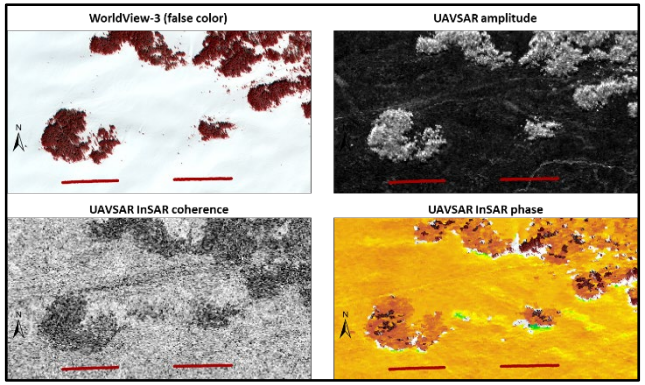
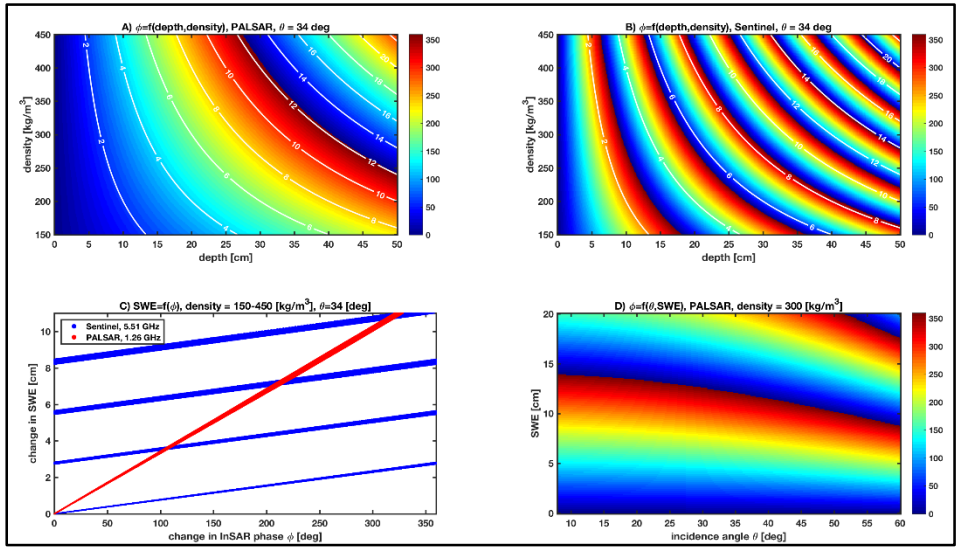
L-Band InSAR



e.g., Gunnerison et al., 2001

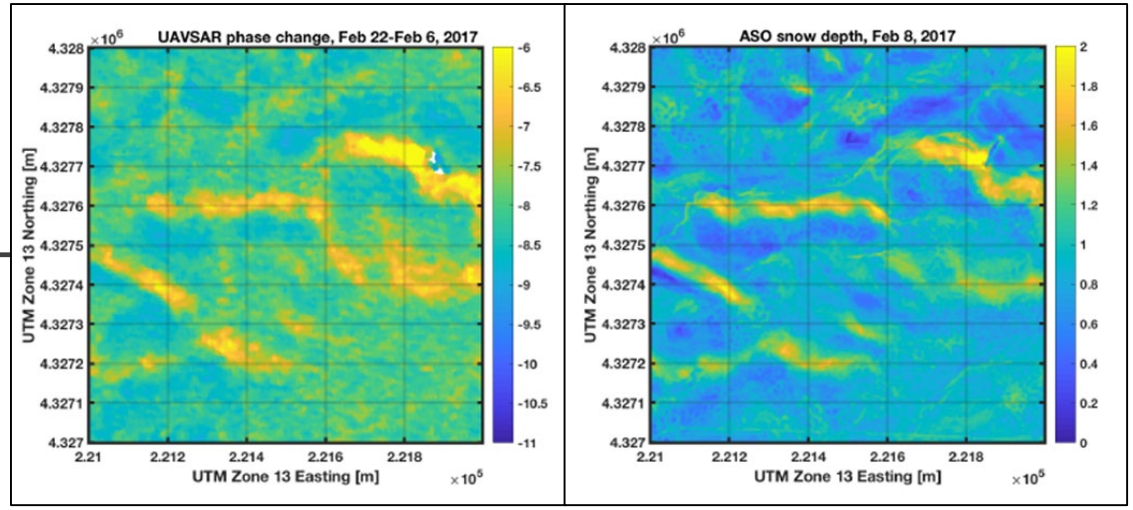
- Physical properties that impact coherence
  - **Changes between acquisitions:** soil conditions, snow wetness, accumulation greater than phase ambiguity, extreme snow microstructure contrast
- Performance in steep terrain
- Frequency dependent phase ambiguity
- Vegetation interaction
- Snow wetness
- Results:
  - SnowEx 2017
  - SnowEx 2020





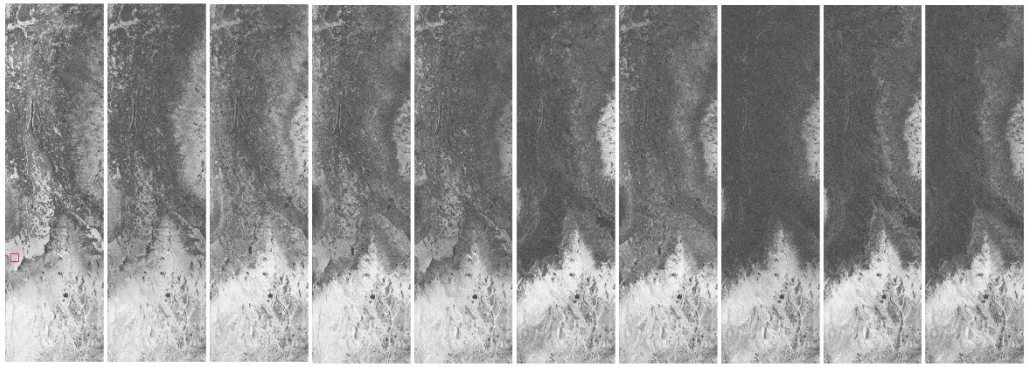
L-Band InSAR (continued)

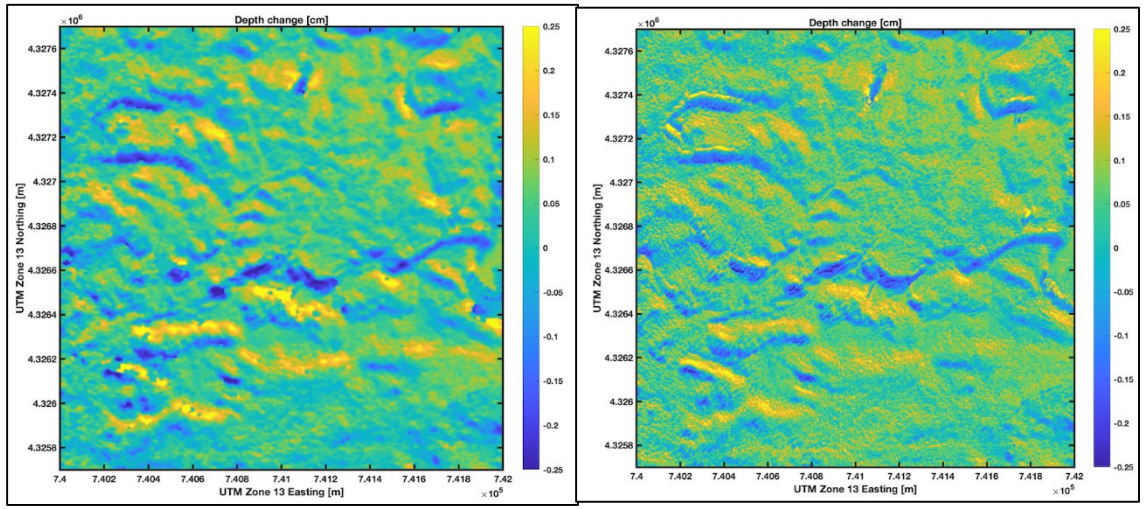
Ground-based L-Band InSAR deployment Boise, ID (March 2020)



2017 UAVSAR InSAR vs Lidar (ASO) snow depth

2017 UAVSAR L-Band coherence over time





2020 UAVSAR InSAR vs Lidar (Quantum) snow depth