

Polar Radar Science & Technology Conference – April 4-6, 2022
THE AGENDA (Listed in Pacific Standard Time)

Day 1 Monday 4/4

What science questions can ground-penetrating radar and related technology help us answer?

0800 - Welcome and orientation from Seth, Zoey and co. - 10 minutes

0810 - Rules of engagement from Tim - 10 minutes

0820 - Presentations - 4 people for 10 minutes each - 40 minutes

1. Bastien Ruols. Current science & logistics using radar: "Drone-based GPR system for alpine glacier surveying"
2. Olaf Eisen. AWI's radar systems, current science, future science: "AWI's ultrawideband radar systems - access, technology & science"
3. Sarina Kapai. Current commercial radar systems, research, and development: "SAR Focusing of Mobile ApRES Surveys"
4. Joe MacGregor. Current & future community radar systems: "Current & future community radar systems"

0910 - Discussion group breakout rooms intro: **Topic is: What are the science questions GPR can help us answer?** - 10 minutes

- who is willing to chair each room?

0920 - break - Tim creates rooms during break - 15 minutes

0935 - return from break and get into breakout rooms - 60 minutes in each room

- discussion memorialized via Google Slides and recorded session

1035 - break - 15 minutes

1050 - regroup and debrief discussion groups - 40 minutes

- 10 minutes for each group

1130 - general discussion - 25 mins

1155 - wrap up from Seth, Zoey and co. - 5 mins

1200 - end

Day 2 Tuesday 4/5

What is the state of our current hardware, software and other resources for radar technology? (What's out there now?)

0800 - Welcome and orientation from Seth, Zoey and co. - 10 minutes

0810 - Rules of engagement from Tim - 10 minutes

0820 - Presentations - 4 people for 10 minutes each - 40 minutes

1. John Bradford. Current science & logistics using radar: "Detailed mapping of the internal structure of Arctic pingos using ground-penetrating radar"
2. Riley Culberg. Future science questions & logistics requiring radar: "Improving Geophysical Constraints on Firm Aquifer Total Water Storage by Combining Radar and In Situ Measurements"
3. Laurent Mingo. Current commercial radar systems, research, and development: "IceRadar: a tool for radio-echo sounding of glaciers"
4. Marie Cavitte. Radar data software, analysis, and interpretation needs: "The difficulty of having only access to open source software"

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1155 - wrap up from Seth, Zoey and co. - 5 mins

1200 - end

Day 3 Wednesday 4/6

Where are the holes? Current gaps in equipment, software and training, future limitations, emerging areas of need?

0800 - Welcome and orientation from Seth, Zoey and co. - 10 minutes

0810 - Rules of engagement from Tim - 10 minutes

0820 - Presentations - 4 people for 10 minutes each - 40 minutes

1. Rodrigo Rangel. Current science & logistics using radar: "Northern lake ice property analysis using ground penetrating radar"
2. Anna Broome. Current & future community radar systems: "Development and Initial Field Testing of a Multi-Frequency Ice-Penetrating Radar"
3. Thomas Teisberg. Current & future community radar systems: "Development of a fixed-wing UAV-borne frequency-modulated ice-penetrating radar system"
4. William Harcourt. Current & future community radar systems: "Millimetre-wave radar at 94 GHz: A new tool for cryosphere research"

0910 - Discussion group breakout rooms intro: **Topic is: Where are the holes? Current gaps in equipment, software and training, future limitations, emerging areas of need** - 10 minutes

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