Figure S1: In-session observation templates. One 'Session Overview' template was used per session. During sessions, one observer would complete a structural observation template for each presentation, and another observer would complete the substance observation template for each presentation.

SESSION OVERVIEW

Session Name:

Date:
Time:
Convener(s):
Co-Chairs:

Material setup:
Room number #_____

Any comments on seating? *(e.g. back seats blocked off)*
_____

Other comments? *(e.g. sound or lighting)*
_____

End of session overview comments:
Which presentations were most popular?

_____

Other observations?

_____

#1: Substance
1. Presentation title: _____

2. Form of storytelling
2a. Story arc: *(name main sections of presentation)*
_____
_____
2b. Visual content emphasis *(e.g. tick and circle one)*

□	Table	None / Few / A lot	□	Video	None / Few / A lot
□	Graphs	None / Few / A lot	□	Equation	None / Few / A lot
□	Photos	None / Few / A lot	□	Text	None / Few / A lot

2c. Other comments on story-telling (*linear, metaphor, narrative devices, clarity of structure*):
_____
2d. Slide information density: *(circle one)* Low / Moderate / Busy

3. Real world justification
3a. Connection to real world problems: *(circle one)*   None / Vague / Clear
3b. Notes on real-world justification:_____

4. Primary method
What types of method(s) were used in the research? *(select as many as necessary)*

□	Field methods	□	Remote data collection	□	Social methods
□	Lab	□	Modelling (on a computer)	□	Other:_____

5a. What is the intellectual 'contribution' of the presentation? (How is their work received?)

□	New data from an observational OR experimental *(circle one)* campaign	□	Developing a method or technique
		□	Literature review
□	Reanalysis of existing data	□	Solution to an applied problem
□	Combining data sets	□	Other: _____
□	Theoretical contribution		

5b. How does the presenter specify the contribution value-added: *(e.g. falsify theory, novel dataset, generalization)*
_____

6. Acknowledgements
6a*. Who* is acknowledged? *(e.g. supervisor, lab group, colleagues, student, funders)*

□	Supervisor	□	Student
□	Lab group	□	Funders
□	Co-authors	□	Institution

6b. *How* are others acknowledged? *(e.g. verbally, by name, citation, acknowledgements slide, use of "we", on title slide)*
_____
6c. How *frequent* are acknowledgements? *(circle one)* at beginning / throughout / at end

6d. How does the presenter represent *themselves*? *(e.g. cites own papers, "my work", trademarks)*
_____
6e. Recognition of funding/supporting organisations: *(circle one)* None / Brief / Prominent

7. Presentation Style:
7a. Language: (Disciplinary specialist) 1 -- 2 -- 3 -- 4 -- 5 (Educated non-specialist)
7b. Comments on language *(e.g. use of technical terms, self-deprecating remarks, gendered language, jokes)*
_____
7c. Body language (e.g. confident gestures, fidgeting, movement, laughter): _____
7d. Use of notes/slides:

□	Reading off notes	□	Responding to slides	□	Reading off slides

7e. Confidence presenting: (Uncertain, stumbles) 1 -- 2 -- 3 -- 4 -- 5 (Confident, at ease)

#2: Structural

1. Presentation title: _____

2. Speaker
2a. Sex: F / M
2b. Stage: (Student) (Early) (Mid) (Late) (Retired)
2c. Sector: (Academia) (Industry) (Public)
2d. Visible minority?   Yes / No
2e. Fluent in English?   Yes / No
2f. Accent: Canadian English / French / Other

3. Chair
3a. Introduction given? Yes / No
3b. Timekeeping signalled   Yes / No
3c. Timekeeping enforced?   Yes / No

4. Time length of presentation: _____ mins   *(if needed: beginning: _____ end: _____)*

5. Technology issues? _____

6. Audience (i.e. anyone sitting in an audience seat, not including the session observers)

6a. No. people in audience _____

6b. No. females in audience   _____

7. Audience behavior
7a. People shuffling in/out during presentation   None   /   Some   /   A lot
7b. People talking to each other   None   /   Some   /   A lot
7c. Using technology during presentation   None   /   Some   /   A lot

7d. Notes on audience behaviour:
_____

8. Presentation style
8a. Language: (Disciplinary specialist) 1 -- 2 -- 3 -- 4 -- 5 (Educated non-specialist)
8b. Comments on language *(e.g. use of technical terms, self-deprecating remarks, gendered language, jokes)*
_____
8c. Body language (e.g. confident gestures, fidgeting, movement, laughter): _____
8d. Use of notes/slides:
   □   Reading off slides   □   Memorised
   □   Reading off notes   □   Responding to slides

8e. Confidence presenting: (Uncertain, stumbles) 1 -- 2 -- 3 -- 4 -- 5 (Confident, at ease)

Question 1
Asked by: F / M
                (Student) (Early) (Mid) (Late) (Unknown)

Type of question(s): *(select as many as necessary)*
- □ Clarification
- □ Requesting further information
- □ Repudiation of presenter's statement/findings/conclusions
- □ Statement of questioner's knowledge/thoughts
- □ Multi-part question
- □ Follow-up question
- □ Interrupts presenter during answer
- □ Other:_____

Length of question: <30 sec / 30-60 sec / 60-90 sec / >90 sec

Tone of question: *(e.g. supportive, inviting, condescending, polite, inquisitive, argumentative)* _____

Notes on response: *(e.g. tone, length of response)* _____

Other notes/details:_____

Question 2
Asked by: F / M
                (Student) (Early) (Mid) (Late) (Unknown)

Type of question(s): *(select as many as necessary)*
- □ Clarification
- □ Requesting further information
- □ Repudiation of presenter's statement/findings/conclusions
- □ Statement of questioner's knowledge/thoughts
- □ Multi-part question
- □ Follow-up question
- □ Interrupts presenter during answer
- □ Other:_____

Length of question: <30 sec / 30-60 sec / 60-90 sec / >90 sec

Tone of question: *(e.g. supportive, inviting, condescending, polite, inquisitive, argumentative)* _____

Notes on response: *(e.g. tone, length of response)* _____

Other notes/details:_____

Question 3
Asked by: F / M
                (Student) (Early) (Mid) (Late) (Unknown)

Type of question(s): *(select as many as necessary)*
- □ Clarification
- □ Requesting further information
- □ Repudiation of presenter's statement/findings/conclusions
- □ Statement of questioner's knowledge/thoughts
- □ Multi-part question
- □ Follow-up question
- □ Interrupts presenter during answer
- □ Other:_____

Length of question: <30 sec / 30-60 sec / 60-90 sec / >90 sec

Tone of question: *(e.g. supportive, inviting, condescending, polite, inquisitive, argumentative)* _____

Notes on response: *(e.g. tone, length of response)* _____

Other notes/details:_____

Response
What were the effects of questions on presenter?
_____

Figure S2: The percentage of presenters in observed sessions within each career stage category, broken down by gender.
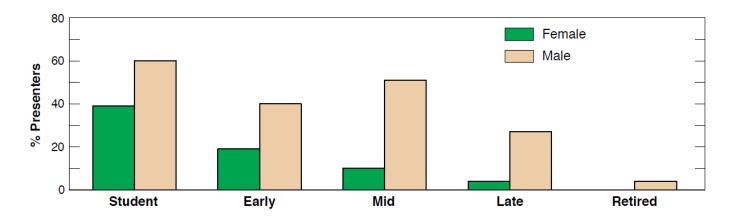

Figure S3: The average audience size (count) by geoscience section.
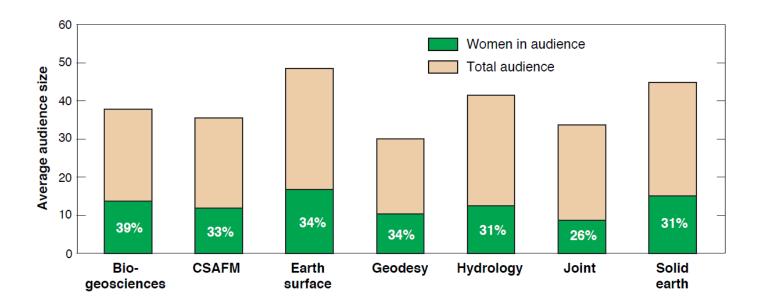
Figure S4: Percentage of presenters who provided a real-world justification for their research, by gender, ethnic affiliation, and career stage.*

Presenter category	% no justification	% vague justification	% clear justification
Presenter gender			
Female (n = 72)	20	27	54
Male (n = 180)	28	33	39
Presenter ethnic affiliation			
People of colour (n = 52)	40	35	25
White (n = 200)	22	30	48
Presenter career stage			
Student (n = 98)	22	36	42
Early (n = 59)	27	36	37
Mid (n = 59)	27	25	47
Late (n = 31)	35	23	42
Retired (n = 3)	33	0	67

*n = total number of presentations per gender, ethnicity, or career stage. Total n = 252 (data on intellectual contribution was not collected for 4 presentations)

Figure S5: Breakdown of types of questions asked in sessions with no female presenters, fewer than 50% female presenters, and 50% or more female presenters.