

TG7: Societal and Environmental Impacts Workshop on Local Impacts

November 15, 2021

<https://snowmass21.org/community/impacts>

<https://indico.fnal.gov/event/51648/>

Mike Headley



Véronique Boisvert



Ken Bloom



Introduction

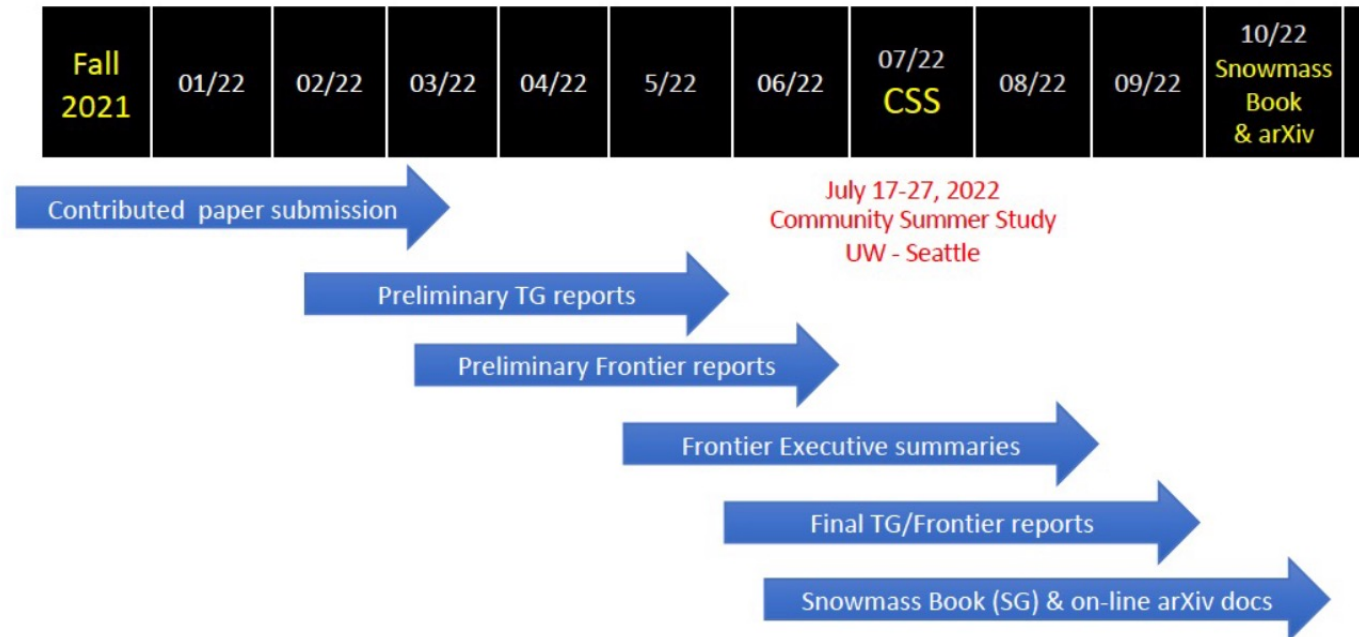
- Welcome to the Workshop on Local Impacts!
- Thank you in advance to today's speakers.
- Particle physics facilities have the potential to have a significant impact on their surrounding local communities.
- Our focus today is on impactful work being performed by labs to partner with their local communities and regional Tribal communities.
- Our goal is to develop a Snowmass white paper that inspires others to find innovative ways to engage with their local communities.

To all Snowmass participants:

- **Please make your work and results known by submitting contributed (white) papers!**
Submission deadline March 15, 2022: <https://snowmass21.org/submissions/start>
- **Document format/style file available on the submission site (optional)**
- **Please do not duplicate other publications. Treat them like conference proceedings**
Will be documented in the Snowmass arXiv / Snowmass Book.

- White papers should be limited to no more than 10 pages.
- An executive summary is recommended.

Snowmass Timelines



Today's Topics

- Work with Tribal Nations and Lessons Learned at SURF
 - Rochelle Zens – SURF
- Fermilab Local Community Impacts
 - Alison Markovitz and Rebecca Thompson – Fermilab
- Berkeley Lab and Rising Sun: Climate, Community, and Collaboration
 - Faith Dukes and Jennifer Tang – LBNL

Plans for Local Impacts White Paper

- Slack channel: #comm-7-soc-env-imp-localcomm.
- Doodle poll will be provided to today's attendees for follow-up discussions – nominally every two weeks.
- Week of Nov 29: Meet and establish topics to address and assign each.
- Will meet every two weeks to report on progress and discuss issues.
- Week of Jan 10: Finalize table of contents and length for topics.
- Week of Jan 24: Final discussion of detailed content.
- Week of Feb 7: First draft completed. Then revise and edit.
- March 15th: Submit to ArXiv.

Other CEF07 Efforts: Carbon Emissions at Future Facilities.

Workshop recently held Nov 9.

White paper development starting this week.

Contact Véronique or Ken if you're interested in participating.

Workshop on Carbon Emissions at Future Facilities

Tuesday Nov 9, 2021, 10:00 AM → 1:00 PM US/Central

Ken Bloom (University of Nebraska-Lincoln), Mike Headley (SDSTA - SURF), Veronique Boisvert (Royal Holloway, University of London)

Description The future of particle physics must be contemplated in its broader global context. That includes the established fact of human-driven climate change through the release of carbon into the atmosphere. We can anticipate that in the future, any major infrastructure project will have to be evaluated not just on its construction costs and societal impact, but also on its carbon footprint. Possible future facilities for particle physics are no exception.

The Snowmass Community Engagement Frontier Topical Group on Societal and Environmental impacts is charged with developing recommendations on how to improve our field's impact on the environment. We are holding a Workshop on Carbon Emissions at Future Facilities to learn about the field's current understanding of the carbon impact of the construction of HEP accelerator facilities and detectors, and of subsequent experimental operations, and to set directions for further studies. We invite Snowmass participants to join us in learning how we can contribute to this area, with the goal of establishing a better understanding of the issues and developing recommendations and best practices for the field in a contributed Snowmass paper.

Zoom link:

Topic: Snowmass CEF07 Workshop on Carbon Emissions at Future Facilities
Time: Nov 9, 2021 10:00 AM Central Time (US and Canada)

Join Zoom Meeting
<https://cern.zoom.us/j/67869999165?pwd=aEo2cHM5d2dJbmZkV0ppMlVhK3djdz09>

Meeting ID: 678 6999 9165
Passcode: 559281

Live notes Google d...

10:00 AM	→	10:20 AM	Introduction	20m
Speakers: Ken Bloom (University of Nebraska-Lincoln), Veronique Boisvert (Royal Holloway, University of London)				
10:20 AM	→	10:50 AM	CERN's first Environment Report	30m
Speaker: Sonja Kleiner (CERN)				
10:50 AM	→	11:20 AM	Energy recovery for plasma-based colliders	30m
Speaker: Marlene Turner (LBNL)				
11:20 AM	→	11:40 AM	Coffee break	20m
11:40 AM	→	12:10 PM	CERN strategies to reduce GHG emissions in particle detection at the LHC experiments	30m
Speaker: Beatrice Mandelli (CERN)				
12:10 PM	→	12:40 PM	Climate sustainability of research operations	30m
Speaker: Astrid Eichhorn (University of Southern Denmark)				
12:40 PM	→	1:00 PM	Discussion	20m