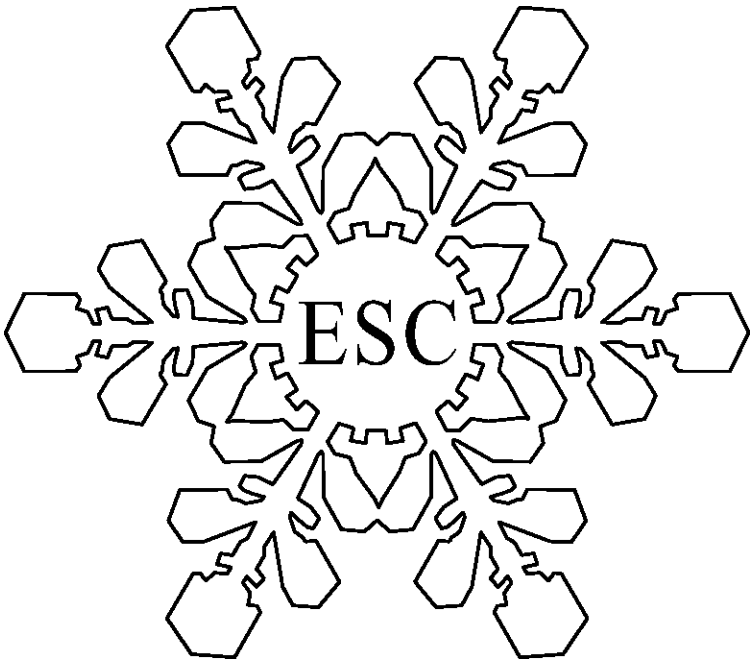
79th Annual
Eastern Snow Conference



Program
6 – 8 June 2023
Nurture Nature Center, Easton, PA

Tuesday, 6 June 2023

1600 – 1730	Executive Committee meeting (Nurture Nature Center)
1730 – 1930	Registration & Icebreaker Reception (Two Rivers Brewing Co.)
2015 – 2200	Early Career Gathering (River Grille)

Wednesday, 7 June 2023

0745 – 0815	**Registration**

Morning Oral Session #1:
Session Chairs: Laura Thomson & Mahboubeh Boueshagh

0815 – 0830	Joan Ramage	Welcome & Introductions & Important Info
0830 – 0845	Krystopher Chutko	Eastern Snow Conference 2020-2023: The Virtual Years
0845 – 0900	Carrie Vuyovich	NASA SnowEx 2023 tundra and boreal forest field campaign in Alaska, U.S.
0900 – 0915	Fraser King	Application of a deep learning nested U-Net for reflectivity inpainting in spaceborne radar blind-zones
0915 – 0930	*Health break*	
0930 – 0945	Firoz Borah	Modelling and analysis of cross-polarized radar backscatter at C, X and Ku bands for SWE retrieval algorithm
0945 – 1000	Benjamin Zalatan	Spatiotemporal prediction of snow accumulation with recurrent graph convolutional networks
1000 – 1015	Madison Woodley	Influence of Snow Capture by Forest Canopy for a Seasonal Snowpack in the Adirondack Mountains, NY

1015 – 1115 Morning Poster Session 1
Poster Session #1
Session Chair: Joan Ramage
Posters will be available to view during all sessions.
Please see the end of the agenda for a list of poster authors and titles.

Morning Session #2:
Session Chair: Zachary Fair and Craig Smith

1115 – 1130	Connor McRae-Pharo	Examination of microwave backscatter of freshwater lake ice using polarimetric decomposition
1130 – 1145	Brendan Wark	Determining lake ice phenology using Google Earth Engine and Sentinel-1 SAR imagery

1145 – 1200	Jake Ferguson	Monitoring lake ice thickness changes using interferometric SAR
1200 – 1215	Yusof Ghiasi	The feasibility of GNSS reflectometry for remote sensing of lake ice physical properties: on-ice snow depth
1215 – 1230	Alicia Pouw	Snow depth mapping on Canada's sub-arctic lakes
1230 – 1315	*Lunch*	

Afternoon Session #3:
Session Chair: Fraser King and Vicki Jagdeo

1315 – 1330	Mariah Matias	It's all about timing: Exploring the relationship between snowmelt and caribou (*Rangifer tarandus*) migration in the Northwest Territories of Canada
1330 – 1345	Ed Kim	SWE retrieval algorithm advances using X- and Ku-band radar
1345 – 1400	Zachary Fair	Using ICESat-2 altimetry to derive snow depth over the boreal forests and tundra of Alaska in support of the SnowEx 2022/2023 campaign
1400 – 1415	Connor Belak	Verification and analysis of the NOAA/NWS Baltimore/Washington weather forecast office winter storm threat experimental product
1415 – 1430	Aleksandra Elias Chereque	Characteristics of extreme daily snowfall events near Arctic coastal regions
1430-1445	*Health Break*	

1445 – 1545 Science on a Sphere show on the Cryosphere presented by Nurture Nature Center Senior Science Educator, Jeff Mucklin
This session will include refreshments

1545 – 1645 Poster Session 2
Poster Session #2
Session Chair: Krys Chutko
Posters will be available to view during all sessions.
Please see the end of the agenda for a list of poster authors and titles.

1800 – 2030 ESC Banquet at the Grand Eastonian Hotel & ESC Business Meeting
Life Member and Student Award Presentations
Keynote Remarks from Our Life Member Awardees: ***Dorothy Hall & Miles Eccleston***
"The ESC and Me"

Thursday, 8 June 2023
Morning Session #4:
Session Chairs: Sam Tuttle & Alicia Pouw

0830 – 0845	Andrew Klein	How representative are low resolution sea ice concentration products of conditions at coastal site along the central western Antarctic Peninsula?
0845 – 0900	Colleen Mortimer	Validation of snow water equivalent products: dialed in for non-mountain regions but challenges remain in complex terrain
0900 – 0915	Eunsang Cho	Assimilation of airborne gamma-ray observations provides utility for SWE estimation in forested environments of the northeastern US
0915 – 0930	Peter Toose	Improving our understanding of ICESat-2 ice thickness estimates in the Canadian Arctic Archipelago using in situ and drone measurements
0930 – 0945	Bart Forman	Ruminations on machine learning and snow mass
0945 – 1000	Laura Thomson	Snow water equivalence and stratigraphy records from White Glacier, Axel Heiberg Island, Nunavut: 1959-2023
1000 – 1030	*Health break (coffee & light refreshments)*	

Morning Session #5:
Session Chairs: Tyler Herrington and Eli Deeb

1030 – 1045	Sam Tuttle	Using lakes as snow pillows: Monitoring snowfall from lake water pressure in the Adirondack Mountains, NY
1045 – 1100	David Robinson	Comparative analysis of NOAA and NASA snow cover extent products
1100 – 1115	Sebastian Roessler	Evolution of Global Snow Cover - Analysis of 23 years of DLR's Global Snowpack and latest processor developments
1115 – 1130	Katherine Hale	Characterization of the Vermont snowpack
1130 - 1145	Benoit Montpetit	Canadian snow radar satellite mission science readiness advancements
1145 – 1300	*Lunch & ESC Executive Meeting*	

1315 – 1600 Excursion
Villa Milagro Vineyard tour and tasting.

Poster Session 1

Number	Name	Title
1	Tate Meehan	Retrieving snow density from ground-based radar and airborne lidar observations and spatial prediction for distributed snow water equivalent in sub-alpine mountain environments
2	David Kelley	Implementation and field validation of a passive radioisotope SWE sensor in the Catskill Mountains, NY
3	Anna Valentine	Estimating snow density using optical and mechanical properties measured by lightweight probes
4	Jeffrey Welch	Bulk snow density retrievals from passive microwave remote sensing and automatic weather stations in a tundra environment
5	Jack Dechow	Post-processing techniques for better surface density estimates for use in wildlife tracking applications
6	Vicki Jagdeo	Passive microwave remote sensing of snowmelt and freeze/thaw in the Kuparuk basin, Alaska, using calibrated enhanced-resolution brightness temperature (CETB) from SSMI/S and SMAP
7	Zeinab Akhavan	Soil state monitoring during fall 2022 and winter 2023 at an experimental site in Ontario, Canada to support L- and Ku-band SAR observations of snow from the CryoSAR airborne system
8	George Duffy	Comparing active and passive observations of snowmelt refreeze in the Sierra Nevada
9	Debarpan Bhowmick	Forest snow depth mapping using novel sub-canopy unpiloted aerial vehicle (UAV) flight planning
10	Julien Meloche	Altimetric Ku-band Radar Observations of Snow on Sea Ice Simulated with SMRT

Poster Session 2

Number	Name	Title
11	Bidhyananda Yadav	Daily continental scale snow water equivalent data for North America
12	Craig Smith	The application of disdrometers and present weather detectors to improve the automated measurement of solid precipitation
13	Dorothy Hall	Detecting snow in western New York using Sentinel-1a, -1b, MODIS, VIIRS and IMS: A case study
14	Connor Henley	Retrieval of snowpack density and ice grain radius from time-domain diffuse optical measurements
15	George Riggs	MODIS and VIIRS snow cover extent continuity
16	Haejo Kim	Interpreting cosmic ray neutron-based snow water equivalent estimates from heterogenous snow distributions
17	Richard Kelly	Ku and L-band SAR observations of terrestrial seasonal snow and lake ice in Ontario during Winter 2023 using the CryoSAR airborne system
18	Eunsang Cho	SWE impact index: Toward identifying critical regions with SWE observational needs
19	Tyler Herrington	Bias correction of an ensemble mean reanalysis-based permafrost soil temperature product using snow cover and vegetation
20	Mahboubeh Boueshagh	Refining and automating DAV snow melt algorithms using passing microwave calibrated enhanced-resolution brightness temperature (CETB) data in Alaska watersheds
21	Angela Rienzo	Comparing passive microwave snowmelt detection methods using ground-based snowmelt observations
22	Daniel Kramer	Multidisciplinary Observatory for Arctic Climate Change and Extreme Events Monitoring (MOACC)