Workshop on the influence of the lower Stratospheric Polar Vortex on cold air outbreaks under climate warming

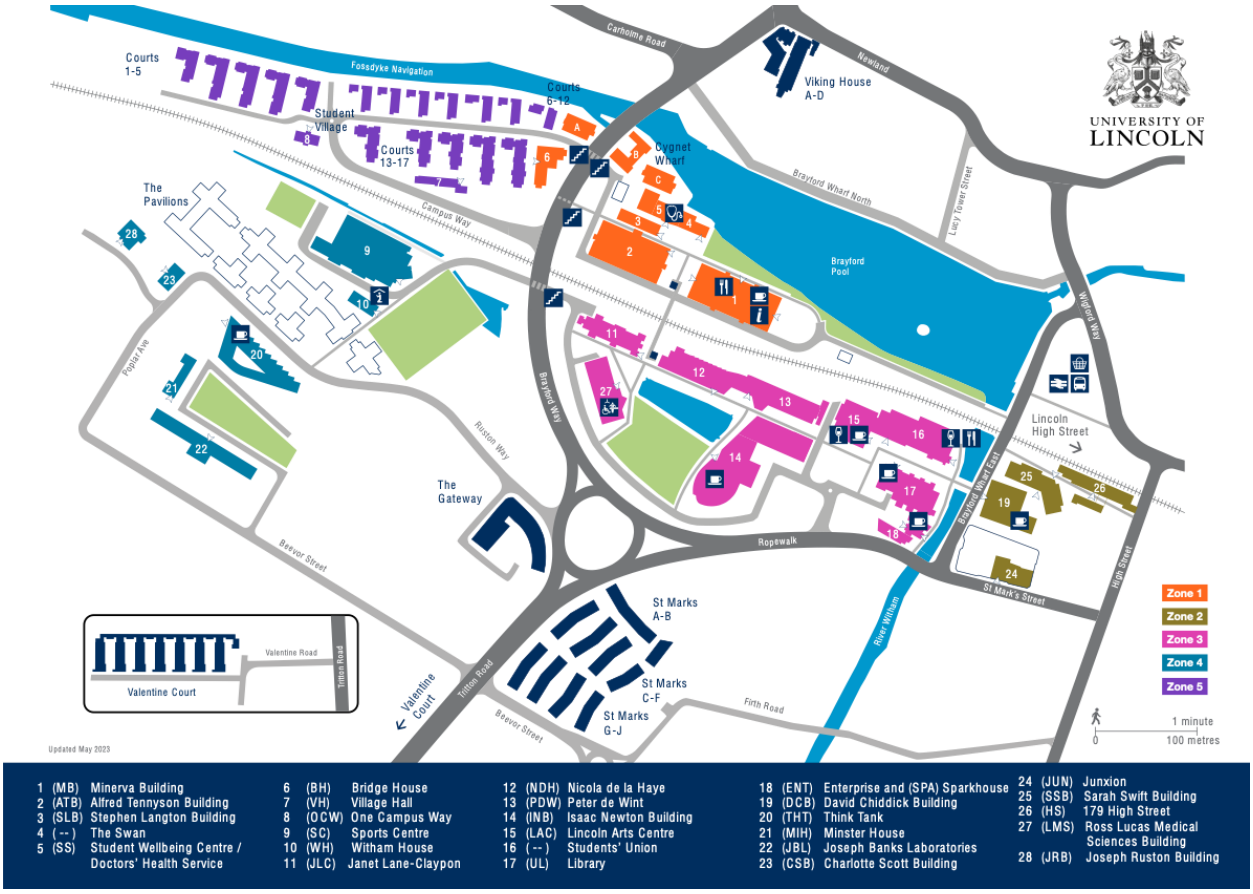
11-13 September 2023, University of Lincoln, Lincoln, UK

Minerva Building (building #1 on the map below), Room 3203

Time	Speaker	Title	Notes
Monday 11th September 2023			
	Session 1 Research Overview *Moderator: Muyin Wang*		
9:00-9:10	Hanna, Edward	Introduction, welcome & logistics	
9:10-9:40	Overland, James	Overview of the workshop & Polar Vortex studies: Why are we here and what are the expected outcomes?	
9:40-10:40	Cohen, Judah	The twisted and tortured path of Arctic influence on mid-latitude winter weather	**Keynote**
10:40 -11:00	Break		
11:00-11:30	Screen, James	The polar vortex response to sea-ice loss and its state dependence	Remote
11:30-12:00	Hanna, Edward & Luo, Linh	Greenland Blocking as a conduit of stratosphere-troposphere coupling and SPV impacts	ECR (Luo)
12:00-13:00	Lunch Break		
	Session 2 Regional Perspectives *Moderator: Edward Hanna*		
13:00-13:30	Statnaia, Irina	Factors influencing sub-seasonal predictability of Northern Eurasian cold spells	ECR
13:30-14:00	Vihma, Timo	Drivers of extreme cold events in Europe	
14:00-14:30	Kim, Seong-Joong	Arctic-east Asia teleconnection via troposphere and stratosphere	

14:30-15:00	Wang, Muyin	North American extreme winter weather and the polar vortex	
15:00-15:30	Break		
15:30-16:00	Yao, Yao	Extreme cold events in North America and Eurasia in November−December 2022: A Potential Vorticity gradient perspective	
16:00-16:30	Ukita, Jinro	Tropical role in the Arctic-midlatitude linkage	
16:30-17:30	Group Discussion	*Moderator: James Overland*	
19:00-21:30		Workshop dinner in local restaurant	
Tuesday 12th Sept. 2023			
	Session 3: Theories & impacts	*Moderator: Timo Vilma*	
9:00-10:00	Luo, Dehai	The potential vorticity gradient theory of atmospheric blocking in the nonlinear multi-scale interaction model: An application to the Arctic-midlatitude linkage	**Keynote**
10:00-10:30	Francis, Jennifer	A new approach to identifying stratospheric polar vortex configurations and connections	
10:30 -11:00	Break		
11:00-11:30	Shen, Xiaocen	Stratosphere-Troposphere Oscillation and its contribution to cold air outbreaks	ECR
11:30-12:00	Hall, Richard	The varied surface impacts associated with sudden stratospheric warming in observations and CMIP6	ECR
12:00-12:30	Fu, Qiang	Internal variability increased Arctic amplification during 1980-2022	
12:30-14:00	Lunch Break		
14:00-14:15	Köhler, Raphael	Investigating pathways connecting tropospheric precursors to stratospheric extreme events	ECR
14:15-14:30	Jaiser, Ralf	The impact of sea-ice concentration and sea-surface temperature boundary forcing in different Experimental Setups with ECHAM6 on the polar stratosphere	ECR

	Session 4: Moving forward *Moderator: James Overland*		
14:30-17:30		Group discussion, and writing assignment	
Wednesday 13th Sept. 2023			
09:30-~17:00		Local excursion by train (~28 minutes' travel) to Newark-on-Trent (nearby historic market town; https://en.wikipedia.org/wiki/Newark-on-Trent), and more group discussions	



Lincoln railway station is just off the lower right of the map, about 10 minutes' walk from the meeting venue. The city centre is to the top right of the map.

The Workshop is sponsored by the International Arctic Science Committee (IASC), the World Climate Research Programme's Climate & Cryosphere (WCRP CliC) core project, and the University of Lincoln.