



International Network for Alpine Research Catchment Hydrology (INARCH)

Fourth Annual INARCH Workshop

Santiago and Portillo, Chile

October 24–26, 2018.

INARCH is a network of scientists studying mountain hydrology around the world and has the overall objective to better understand alpine cold regions hydrological processes, improve their prediction, and find consistent measurement strategies. The fourth annual INARCH workshop will bring together this network to follow up on activities, progress, and plans towards its overall objective and its research questions relating to alpine hydrology. A number of topics will be reviewed and discussed, including field observations, catchment data and emerging methods, snow hydrology, glacier hydrology, model simulation and data assimilation, and the interface of science to policy. Regional initiatives and linkages with various external organizations, such as Future Earth’s Sustainable Water Futures Programme and UNESCO’s International Hydrological Programme, as well as the Canadian-led Global Water Futures Project and the recently proposed and initiating ANDEX RHP for the Andes, will be discussed.

Meeting Agenda

Wednesday, October 24

Joint ANDEX–GHP–INARCH meeting Universidad de Chile, Santiago		
High Mountain Water Cycle Research Needs		
9:00 – 9:10	TBD	Welcoming remarks
9:10 – 9:30	Joan Cuxart	GEWEX Hydroclimate Panel (GHP)
9:30 – 9:50	Germán Poveda	ANDEX hydroclimate research program for the Andes
9:50 – 10:10	Prof. Ailikun	Third Pole Environment (TPE)
10:10 – 10:30	John Pomeroy	International Network for Alpine Research Catchment Hydrology (INARCH)
10:30 – 10:50	Coffee break	
10:50 – 11:10	John Pomeroy	Global Water Futures (GWF) RHP
11:10 – 11:30	Roy Rasmussen	Prospective western US RHP
11:30 – 12:30	General discussion on mountain water research, prediction and monitoring needs for extreme events	
12:30 – 14:30	Lunch around campus	

INARCH meeting participants travel to Portillo		
14:30	Busses to depart from the University	
17:30	Arrival, welcome to Portillo	
18:30	Dinner and reception, evening social activities	

Thursday, October 25

INARCH workshop Day-1 Hotel Portillo		
7:00 – 8:00	Breakfast	
8:30 – 8:50	James McPhee & John Pomeroy	Introductory remarks and goals for the workshop
Catchment & process hydrology; field observations and emerging techniques; INARCH regional activities		
8:50 – 9:20	Sean Carey	Hillslope hydrology and catchment hydrology in mountains, including those with permafrost
9:20 – 9:45	Short (3-4 minute) poster presentations	
9:45 – 11:00	Posters and coffee	
11:00 – 12:00	Panel discussion	
12:00 – 13:30	Lunch	
Glaciers and climate change		
13:30 – 14:00	Shelley MacDonell	The hydrological role of glaciers in the Atacama Desert
14:00 – 14:45	Gino Casassa	Glacier monitoring in Chile
14:45 – 15:00	Short (3-4 minute) poster presentations	
15:00 – 16:30	Posters and coffee/tea	
16:30 – 17:30	Panel discussion	
17:30	Outdoor activity: Portillo overlook which can be accessed via the ski lift	
19:00	Dinner and social activities	

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Friday, October 26

INARCH workshop Day-2 Hotel Portillo		
7:00 – 8:00	Breakfast	
8:15 – 8:20	James McPhee	Workshop day-2 introduction
Data and simulations; big data techniques; remote sensing; data assimilation and models		
8:20 – 8:50	Ethan Gutmann	Coupling fine scale atmospheric models, remote sensing data to run hydrological models
8:50 – 9:20	Nacho Lopez Moreno	INARCH modelling experiment of almost 50 catchments around the world for hydrological and snow sensitivity to climate change
9:20 – 9:40	Short (3-4 minute) poster presentations	
9:40 – 11:00	Posters and coffee	
11:00 – 12:00	Panel discussion	
12:00 – 14:00	Brown bag lunch + Outdoor activity: walk along the Laguna del Inca shore	
Linkages with other programs and global contribution/impact		
14:00 – 14:15	Chris DeBeer	INARCH contributions to international initiatives and activities of working group on Climate Impacts on Global Mountain Water Security
14:15 – 15:00	General discussion <ul style="list-style-type: none"> • INARCH links to Future Earth (proposal for working group on Climate Impacts on Global Mountain Water Security), UNESCO International Hydrological Programme, GWF and Mountain Water Futures • Discussion on these and potential ANDEX linkage • Contribution of pre-assessment synthesis article(s) to inform IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (chapter on High Mountain Areas) and IPCC Sixth Assessment Report 	
Workshop close		
15:00 – 15:30	Concluding comments, workshop statements and roundtable	

15:30	Departure and return to Santiago	

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