

Polar Low Workshop

25-26 April 2016

Location:

*Université Pierre et Marie Curie (metro station: Jussieu),
Tour 46-56, 2nd floor, 4 Place Jussieu, 75005 Paris*

Program (updated 22 February)

Monday 25 April

09:00 - 09:10	Welcome and Opening
Session 1 : Satellite-derived Polar Low Climatologies (5)	
09:10 - 09:30	<u>Smirnova</u> : Polar low climatology over the Nordic and Barents seas for 1995/1996-2008/2009
09:30 - 09:50	<u>August</u> : Tracking Polar lows 3D humidity structures from Polar orbiting atmospheric sounders
09:50 - 10:10	<u>Gurvich</u> : Mesoscale cyclones and cold air outbreaks over the eastern part of the Eurasian Arctic using the satellite multisensor measurements and reanalysis
10:10 - 10:30	<u>Verezemskaya</u> : Mesocyclone activity over the Southern Ocean from satellite infrared mosaics for winter 2004
10:30 - 10:50	<u>Melsheimer</u> : Detection of polar lows and polar mesocyclones using satellites
10:50 - 11:10	Coffee break
Session 2 : Climatological Aspects of Polar Lows (4)	
11:10 - 11:30	<u>Yanase</u> : Climatology of polar lows over the Sea of Japan using tracking algorithm and the JRA-55 reanalysis
11:30 - 11:50	<u>Michel</u> : Polar low climatologies for the Nordic Seas
11:50 - 12:10	<u>Rojo</u> : Polar lows over the Norwegian Sea : impacts on maritime conditions and activities
12:10 - 12:30	<u>Romero</u> : Climate change and North Atlantic Polar lows : Statistical-deterministic projections based on CMIP5 models
12:30 - 14:00	Lunch

Session 3 : Representation and Detection of Polar Lows in Reanalyses and Model Data (6)	
14:00 - 14:20	<u>Moore</u> : Impact of Resolution on the Representation of Polar Lows over the Nordic Seas
14:20 - 14:40	<u>Chaboureau</u> : Polar lows over the Nordic Seas : Improved Representation in ERA-Interim compared to ERA-40 and the impact on downscaled simulations
14:40 - 15:00	<u>Bresson</u> : Applying an objective Polar Low identification scheme to two high-resolution atmospheric reanalyses
15:00 - 15:20	<u>Golubkin</u> : Representation of different polar low lists in two reanalysis datasets
15:20 - 15:40	<u>Carleton</u> : Ocean-Atmosphere environments of Sub-Antarctic Cold-air mesocyclones in winter: depiction by two reanalysis datasets for contrasting adjacent 10-day periods (« Macro-Weather »)
15:40 - 16:00	<u>Akperov</u> : Polar lows from an ensemble of regional climate models
16:00 - 16:20	Coffee break
Session 4 : Polar Mesoscale Weather Phenomena (5)	
16:20 - 16:40	<u>Moore</u> : Arctic system Reanalysis improvements in topographically-forced winds near Greenland
16:40 - 17:00	<u>Gutjahr</u> : Analysis of wind extremes in the Arctic using mesoscale numerical model simulations
17:00 - 17:20	<u>Papritz</u> : Importance of latent heating in mesocyclones for the decay of cold air outbreaks : a case study from the Pacific sector of the southern Ocean
17:20 - 17:40	<u>Zhang (by Fu)</u> : Statistical analyses of explosive cyclones over the northern Pacific from 2000 to 2015
17:40 - 18:30	Discussion
19:30	Dinner at Restaurant LE PROCOPE (complimentary) Directions will be given during the workshop.

Tuesday 26 April

Session 5 : Favorable Environments for Polar Low Genesis (5):	
09:00 - 09:20	<u>Watanabe</u> : Composite analysis and numerical simulation on polar mesocyclones over the Sea of Japan
09:20 - 09:40	<u>Mallet</u> : Polar lows over the Nordic and Labrador Seas : What about associations with North-Atlantic-Europe wintertime weather regimes under warmer climate ?
09:40 - 10:00	<u>Nordeng</u> : A polar low genesis area
10:00 - 10:20	<u>Carleton</u> : Variations of Antarctic Cold-air mesocyclones and their ocean-atmosphere environments for two winters marked by teleconnection extremes
10:20 - 10:40	<u>Claud</u> : Clues to understand temporal polar low distribution over the Nordic Seas
10:40 - 11:00	Coffee break
Session 6 : Predictability of Polar Lows and Operational Aspects (4)	
11:00 - 11:20	<u>Valkonen</u> : Assimilation of ASCAT scatterometer winds for forecasting of polar lows at MET Norway
11:20 - 11:40	<u>Noer</u> : Polar lows in the context of the fine scale Arome-Arctic NWP model
11:40 - 12:00	<u>Polezhaeva (by Zabolotskikh)</u> : Polar low evolution modeling using satellite passive microwave data
12:20 - 12:40	<u>Støylen</u> : Polar low tracking and Arctic forecasting at MET Norway
12:40 - 14:00	Lunch
Session 6 : Polar Low Case studies and Idealised Simulations (6):	
14:00 - 14:20	<u>Sergeev</u> : Structure of the shear-line polar low in the Norwegian Sea
14:20 - 14:40	<u>Verezemskaya</u> : Numerical simulation study of polar low in Kara Sea : developing mechanisms evaluation
14:40 - 15:00	<u>Heinemann</u> : Case studies of mesocyclones in the Weddell Sea during the summer season 2015/16.
15:00 - 15:20	<u>Wagner</u> : Excitation of non-orographic gravity waves over the Norwegian Sea by polar lows during the GW-LCYCLE I and II campaign
15:20 - 15:40	<u>Terpstra</u> : Influence of surface fluxes on polar low development : idealized simulations
15:40 - 16:00	<u>Spengler</u> : Polar lows, forward and reverse shear conditions and diabatic intensification
16:00 - 16:20	Coffee Break
16:20 - 17:00	Discussion and closing remarks