

Yamazaki, A., M. Honda, and H. Kawase, 2019: Regional snowfall distributions in a Japan-Sea side area of Japan associated with jet variability and blocking. *J. Meteor. Soc. Japan*, **97**, 205-226.

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Plain Language Summary: This study investigated the relationships between well-known dominant regional snowfall distributions in the *Niigata* area, intraseasonal jet variability over Eurasia, and atmospheric blocking. Snowfalls in plain (P-type), mountainous (M-type), and the whole (PM-type) areas of Niigata were controlled by quasi-stationary Rossby waves along the subpolar, subtropical, and both jets, respectively. Blocking over the Siberian regions enhanced cold air outbreaks intruding toward Japan and contributed the P-, M-, and PM-type snowfalls.

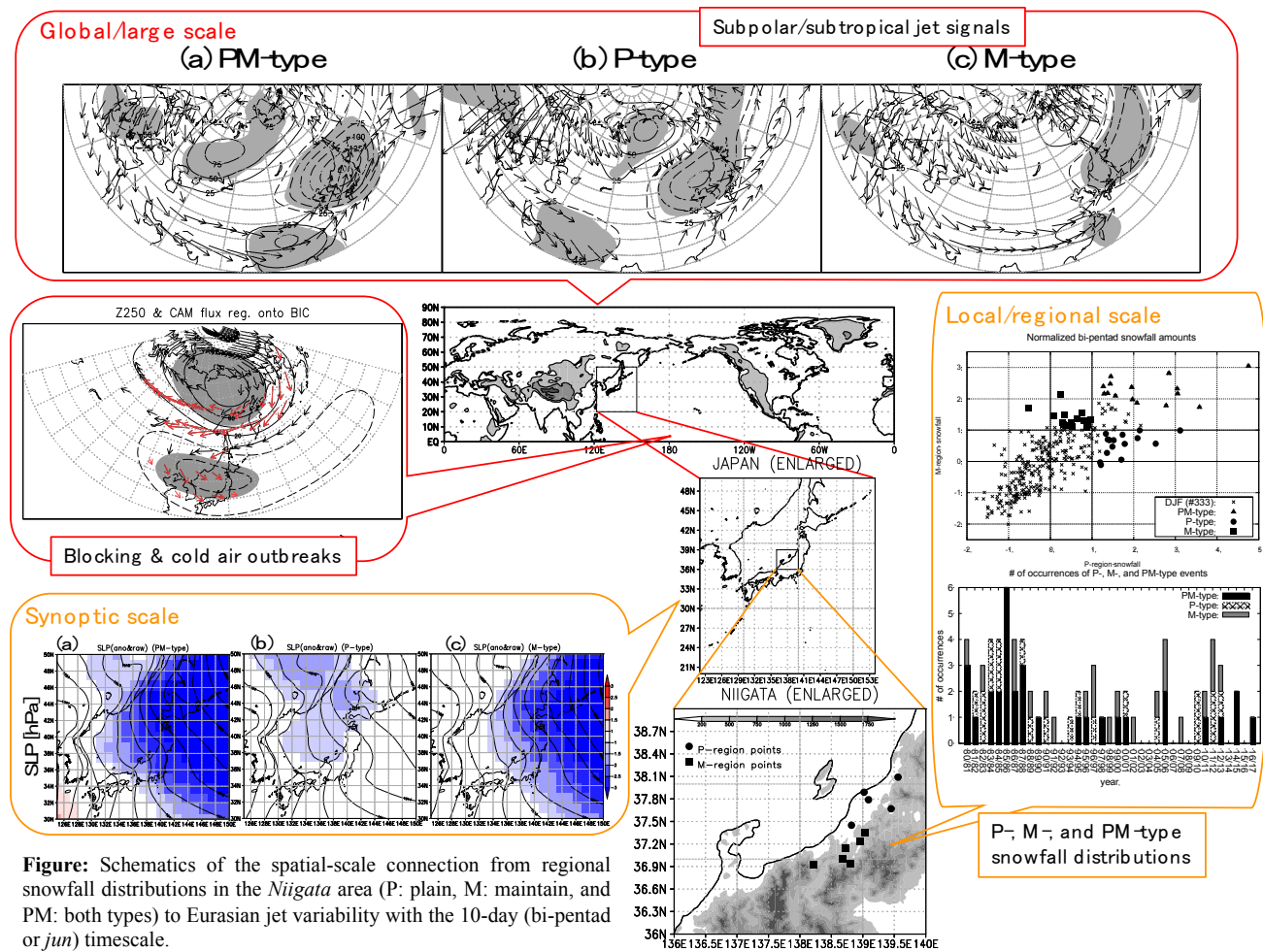


Figure: Schematics of the spatial-scale connection from regional snowfall distributions in the *Niigata* area (P: plain, M: maintain, and PM: both types) to Eurasian jet variability with the 10-day (bi-pentad or *jun*) timescale.

- We focused on P-, M-, and PM-type snowfall variations in 10-day (bi-pentad or *jun*) timescale associated with anomalous large-scale circulations.
- Local snowfall distributions (10–10² km) can be determined by different large-scale (10³–10⁴ km) atmospheric circulations, which were evidently distinguished in the global reanalysis data.
- Quasi-stationary Rossby-wave packets along the subpolar and subtropical jets and Siberian blocking collaboratively or often independently contributed to the P-, M-, and PM-type snowfall occurrences.