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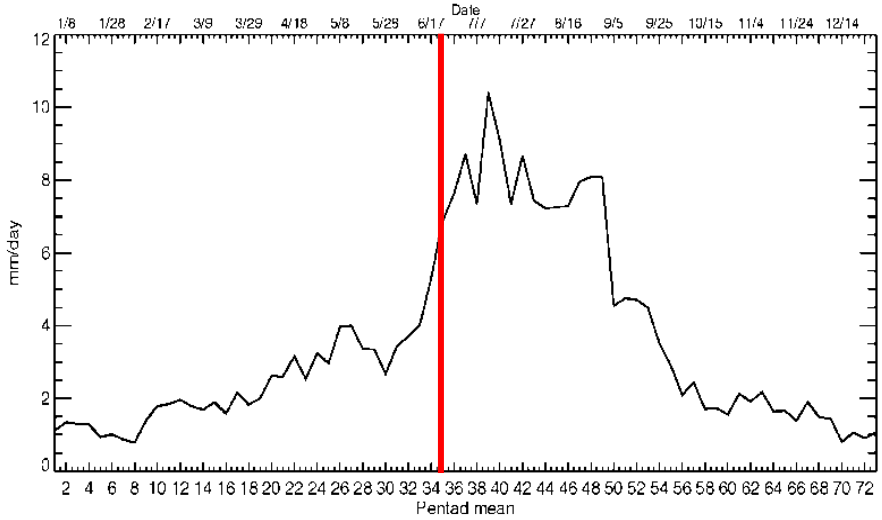
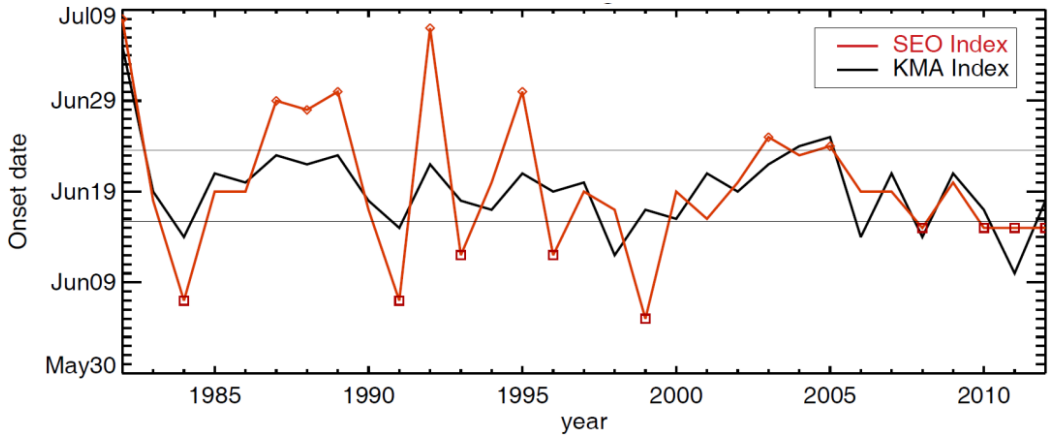
Seasonal Prediction of Interannual Variability of Changma Onset

Seasonal evolution of PRCP Rate



Korean Peninsula
(125°–130°E, 35°–40°N)

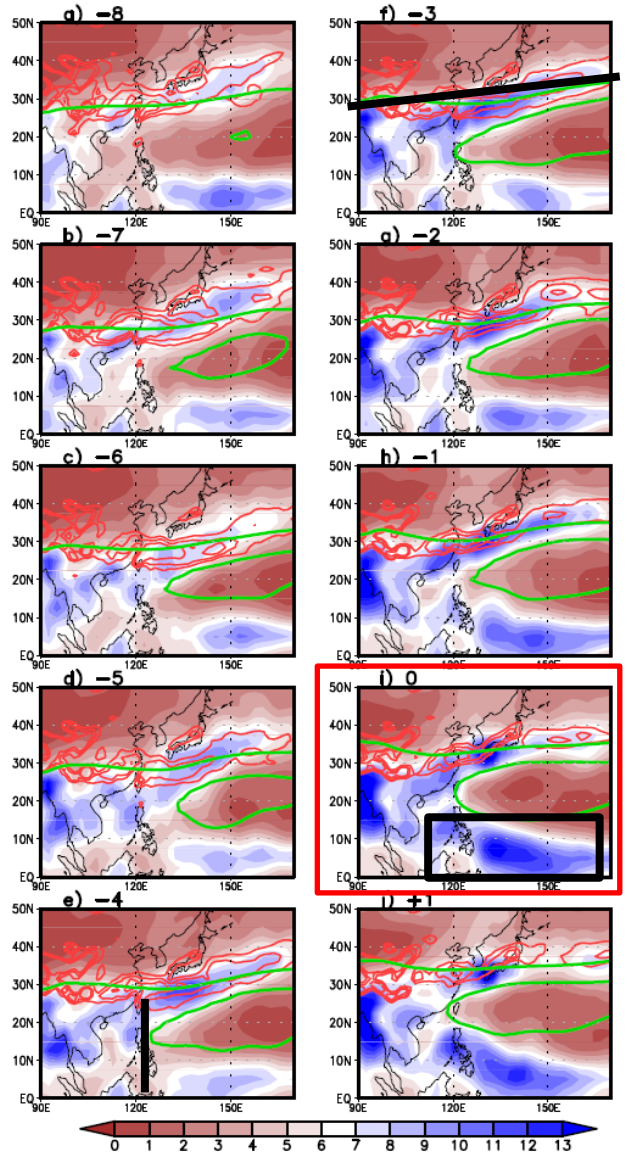
Timeseries of Changma Onset Index



Park, H.-I., K.-H. Seo, J.-H. Son, 2015: Development of a Dynamics-Based Statistical Prediction Model for the Changma Onset. *Journal of Climate*, 28, 6647-6666

Pre-condition of Changma Onset

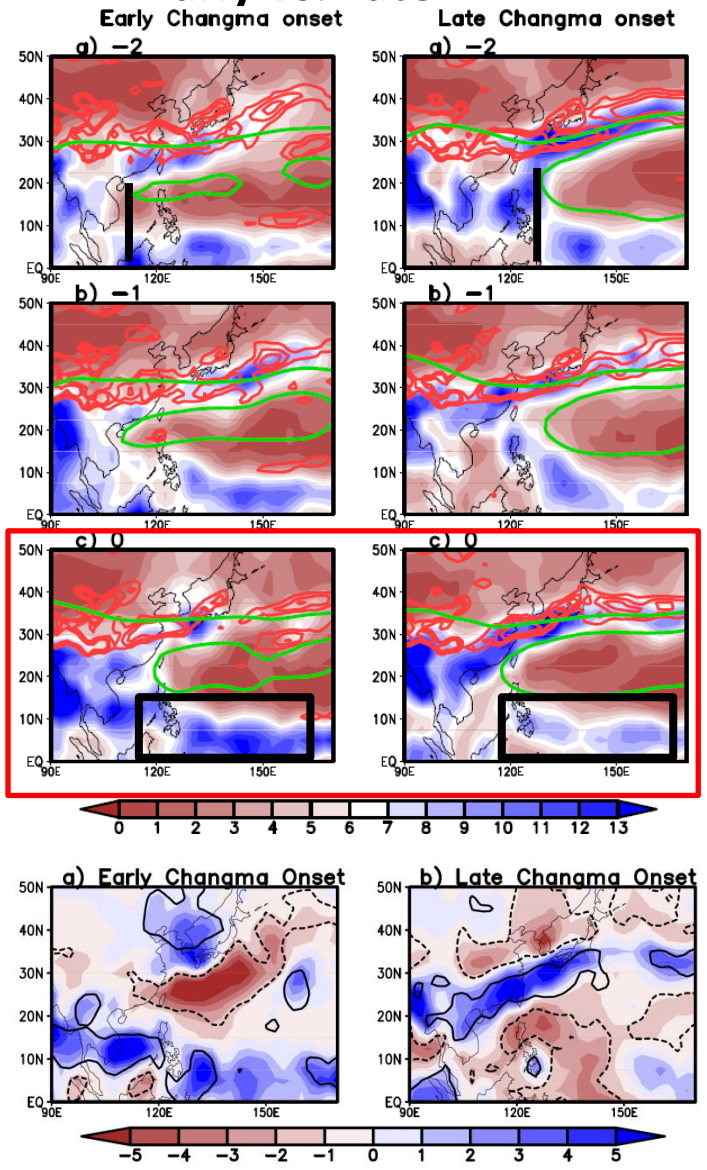
Pre-condition



Onset day

Shading : prcp
Green : 5880gpm, 5820gpm
Red : min[$\frac{d}{dy}(\theta_e)$]

Early vs. Late



Onset day

Contour : 90% sig

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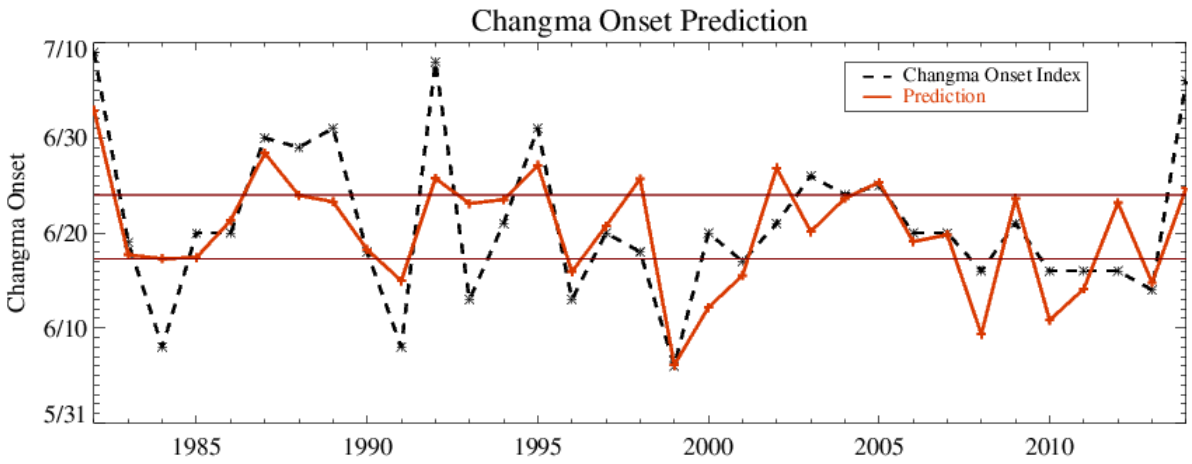
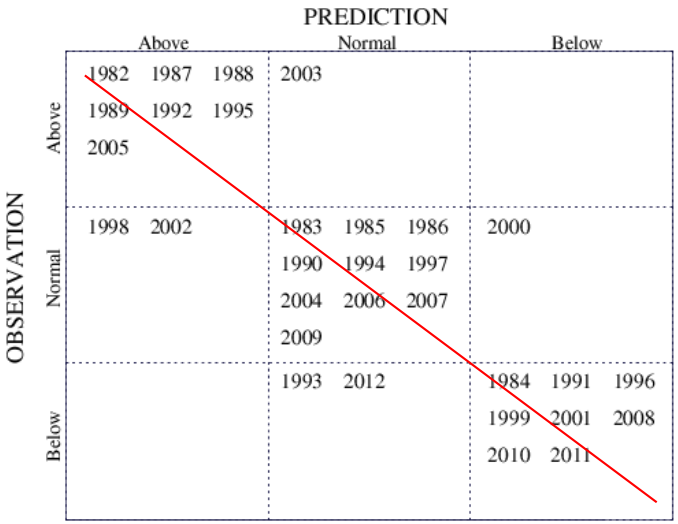
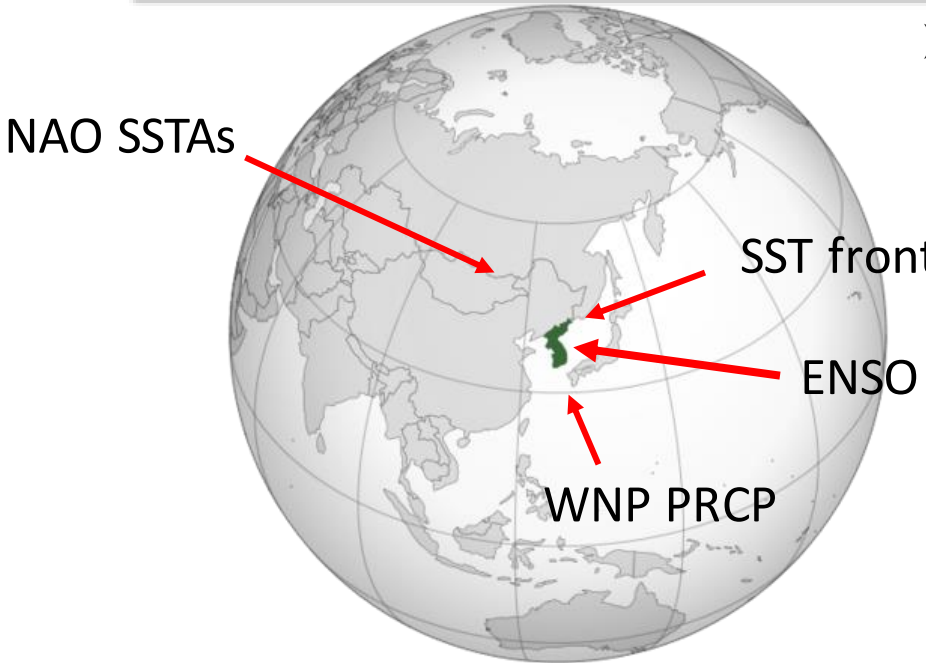
Proposed Results





$$Y(onset\ date) = -0.579(NA_{dipole}) - 0.399(NP_{devleop}) + 0.300(NTCP) + 0.0039$$



- **Predicting skill of the developed Statistical Prediction Model : CORR = 0.73, RMSE = 0.69, GMSS = 0.70 (81%)**

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Current Research Interests
– Interannual Variability of Winter Temperature over East Asia

- Understand the teleconnection mechanism of external forcing on the interannual time-scale
- Quantitatively compare relative importance between external forcings on EAWM

Figure is from Korea Polar Research Institute(KOPRI)