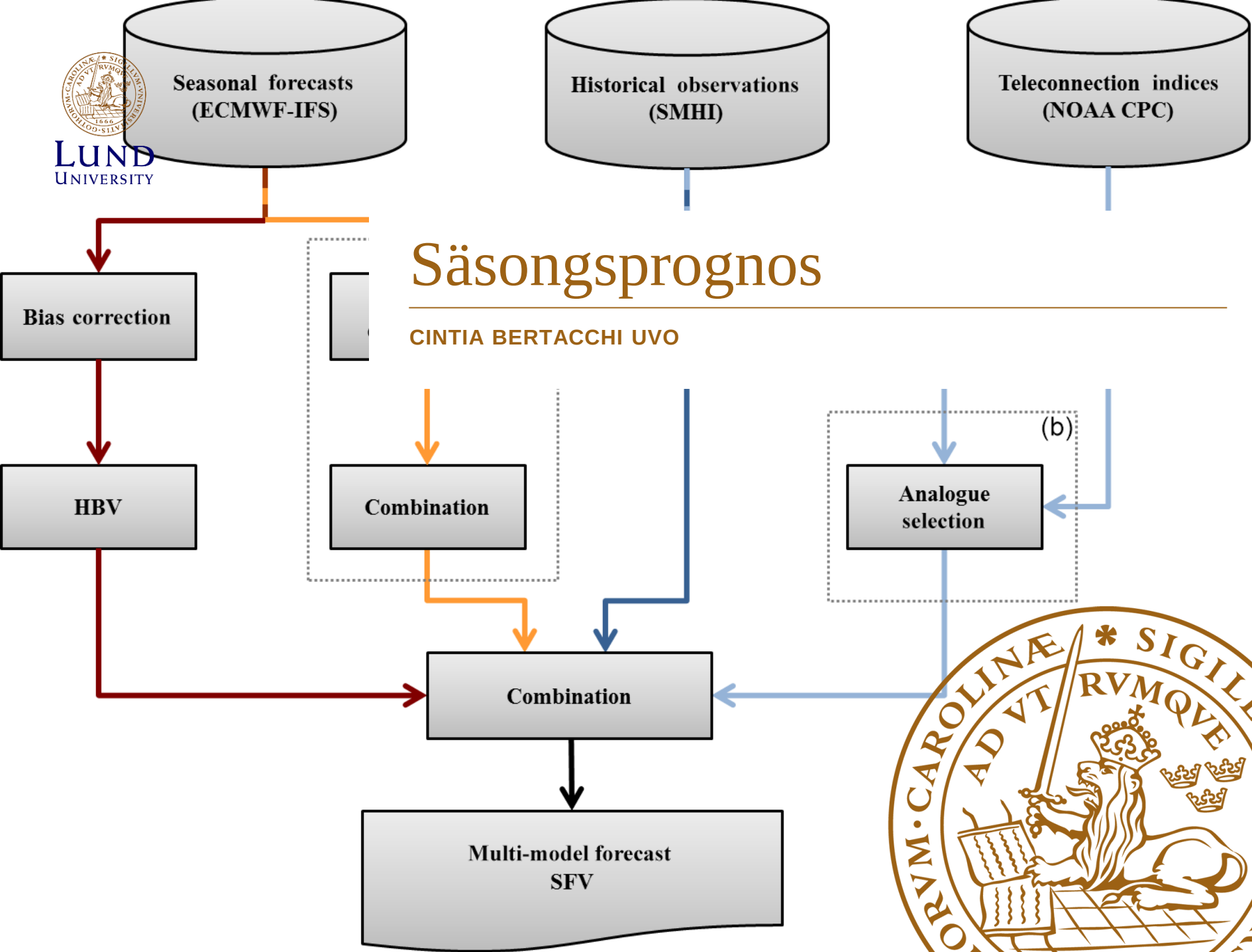
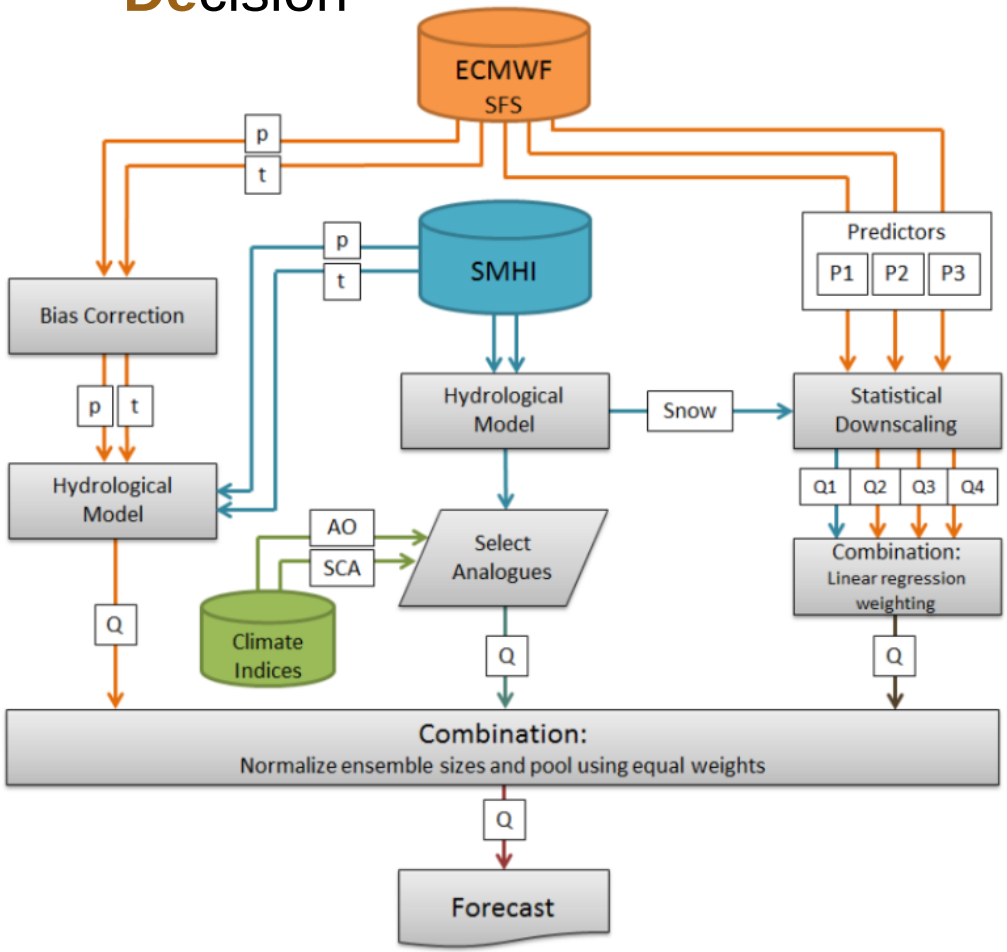
Säsongsprognos

CINTIA BERTACCHI UVO



Bakgrund: CONPHYDE multimodellen

- **C**limate-based **O**peratio**N**al **P**redictions for **HY**dropower **De**cision



HYDROLOGICAL SEASONAL FORECAST SYSTEM
A PROTOTYPE MULTI-MODEL SYSTEM FOR FORECASTING THE SPRING FLOOD
REPORT 2015:206

Hydrol. Earth Syst. Sci., 20, 659–667, 2016
www.hydrol-earth-syst-sci.net/20/659/2016/
doi:10.5194/hess-20-659-2016

Hydrology and Earth System Sciences
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Technical Note: Initial assessment of a multi-method approach to spring-flood forecasting in Sweden

J. Olsson[1], C. B. Uvo[2], K. Foster[1,2], and W. Yang[1]

Hydrol. Earth Syst. Sci., 22, 2953–2970, 2018
https://doi.org/10.5194/hess-22-2953-2018

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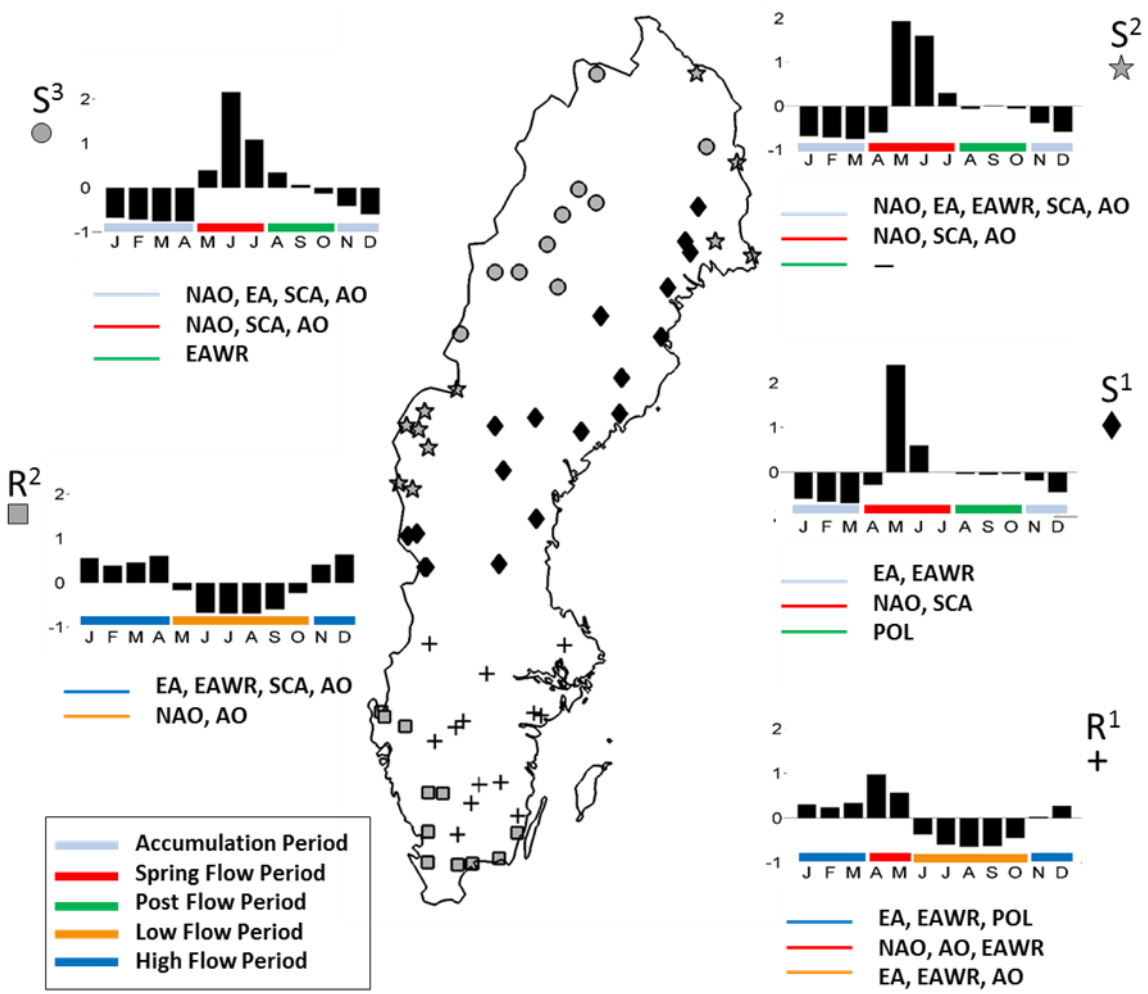
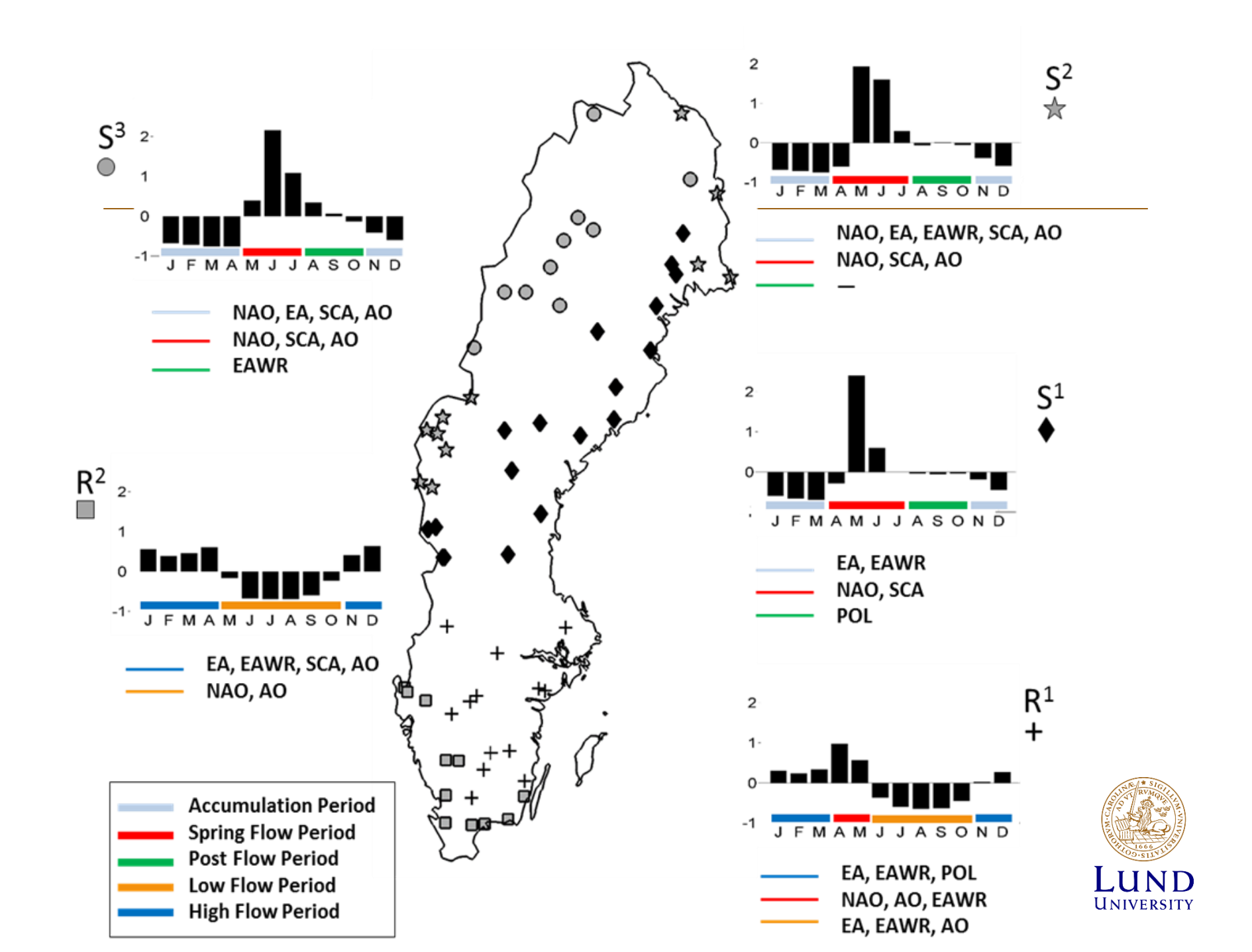
The development and evaluation of a hydrological seasonal forecast system prototype for predicting spring flood volumes in Swedish rivers

Kean Foster[1,2], Cintia Bertacchi Uvo[2], and Jonas Olsson[1]
[1]Research and Development (hydrology), Swedish Meteorological and Hydrological Institute, 601 76 Norrköping, Sweden
[2]Department of Water Resources Engineering, Lund University, Box 118, 221 00 Lund, Sweden

Påverkan av klimatvariabilitet på flödet




S3
2
1
0
-1
J F M A M J J A S O N D
NAO, EA, SCA, AO
NAO, SCA, AO
EAWR
S2
NAO, EA, EAWR, SCA, AO
NAO, SCA, AO
S1
EA, EAWR
NAO, SCA
POL
R2
EA, EAWR, SCA, AO
NAO, AO
R1
EA, EAWR, POL
NAO, AO, EAWR
EA, EAWR, AO
Accumulation Period
Spring Flow Period
Post Flow Period
Low Flow Period
High Flow Period
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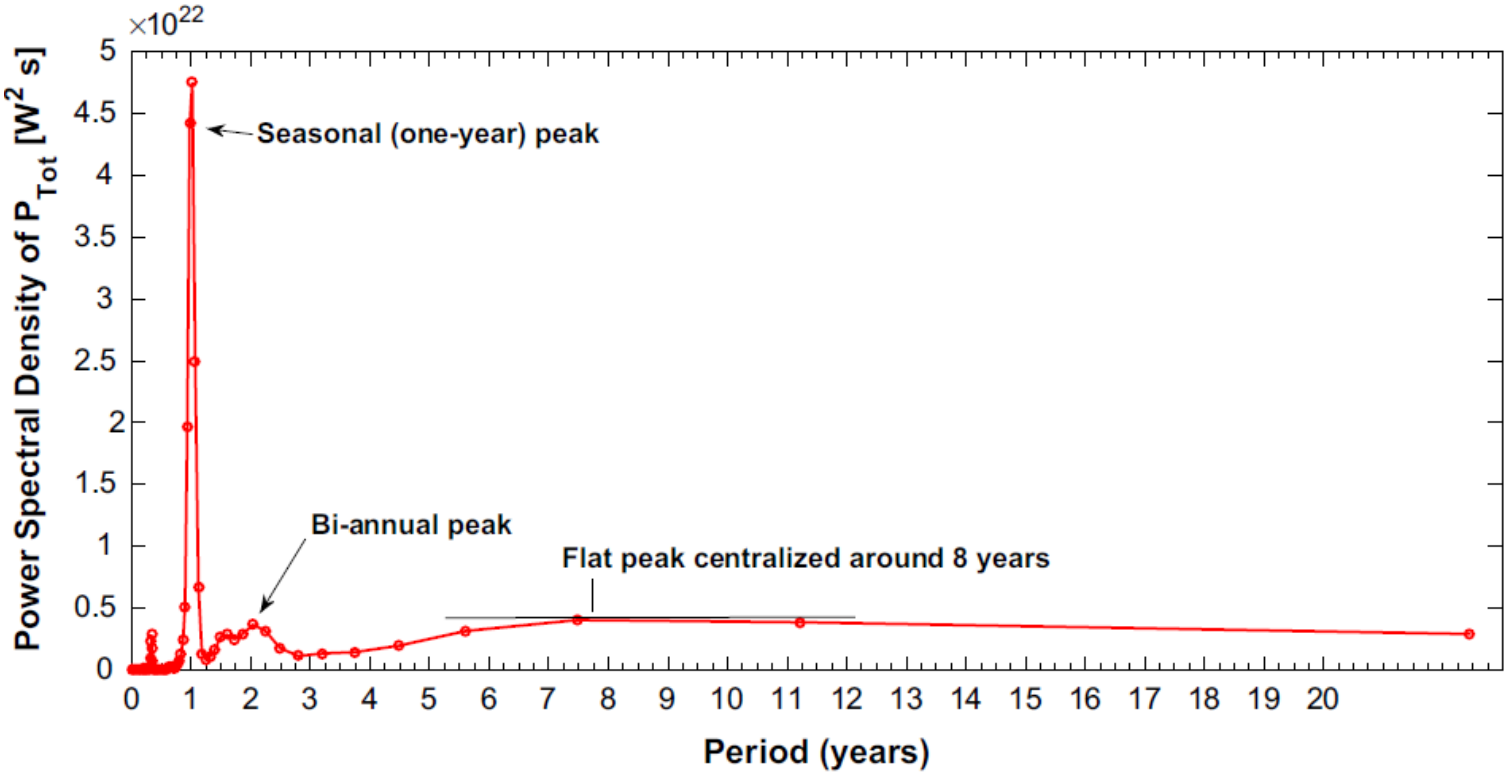
Potential Energy of Runoff in Sweden

- Wörman et al. 2017



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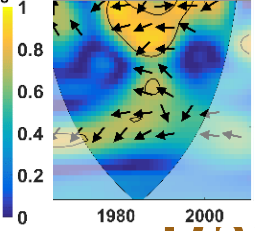
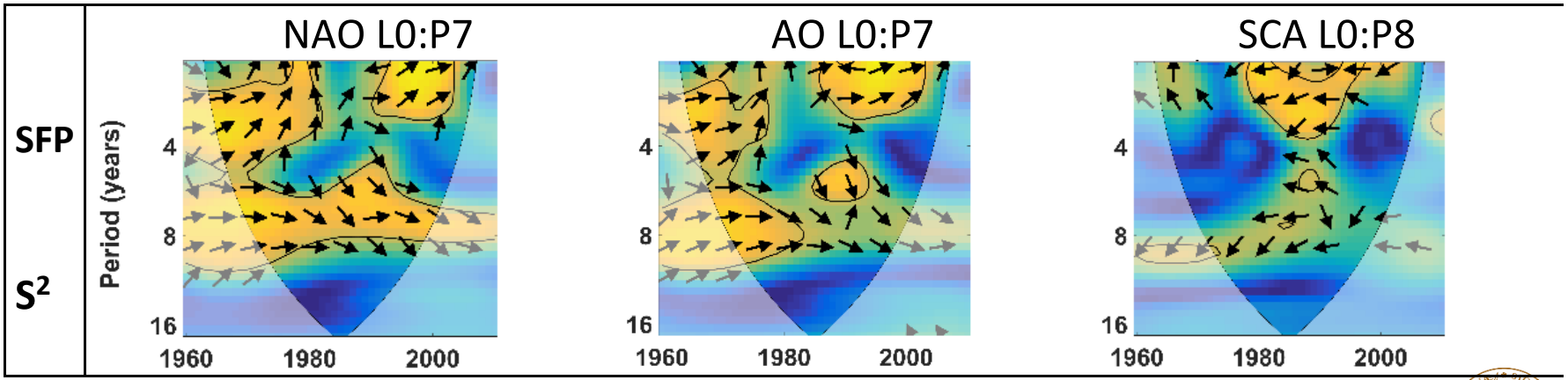


Påverkan av klimatvariabilitet på flödet

- Vilka klimatvariationer som påverkar flödet, när och hur ofta?
- Metoder: Cross - Wavelet Transform och Wavelet Transform Coherence -> Lokal korrelation



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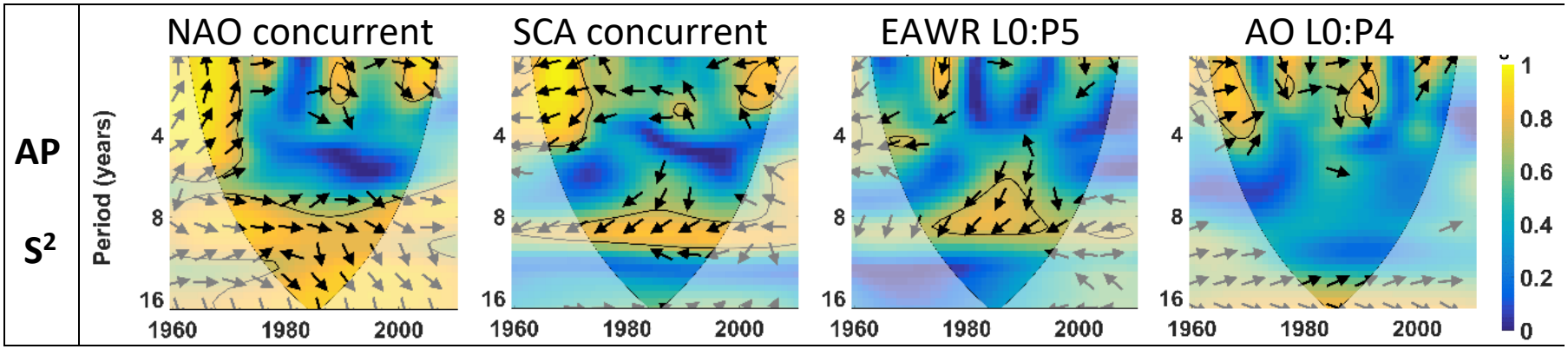
Påverkan av klimatvariabilitet på flödet

- Lokal korrelation
  - Accumulation period S^2



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Nästa …

- Förbättra kunskapen om hur klimatets variabilitet påverkar flödet i Sverige regionalt
- Expandera kunskapen till Europa
- Förbättra CONPHYDEs statistiska ben

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