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## NG43A-0139: Large-Scale Patterns of Flood Seasonality in Europe

**Thursday, 14 December 2017**

**13:40 - 18:00**

 *New Orleans Ernest N. Morial Convention Center - Poster Hall D-F*

Flood seasonality has traditionally been investigated for case-specific local or country-specific studies. This precludes the detection of larger-scale flood seasonality features that may shed further light on underlying mechanisms.

To enable the detection and characterisation of larger-scale patterns in flood seasonality across Europe, we have compiled a comprehensive flood database of over 4000 hydrometric stations.

The mean timing of floods across Europe varies gradually from the west to the east due to increasing continentality, and from the south to the north due to the increasing influence of snow processes.

To further investigate the spatial patterns observed, we conducted a cluster analysis over the flood timing for all stations that have a distinct flood seasonality for the period 1960-2010.

The results reveal the existence of well-defined spatial clusters of seasonality, the signatures of which are associated to the corresponding dominant climatic and physiographic controls.

### Plain Language Summary

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