

We thank the reviewer for further clarifying this and provide information below that will be added to the paper.

Thanks to the authors for the prompt response. It is fine to add comparisons in the discussion part. However, I think adding figures based on non-directional statistics will still be useful. Showing the problems is as valuable as showing the advantages. You can adopt the normal Oct-Sep water year, even though Germany may use a different norm, and combine the trend and spatial distributions in one figure to avoid extended length. Such kind of comparison will be necessary to validate the distinct features of the directional statistics and show how problematic the non-directional statistics could be if those problems do exist. About the unit problem, its impact won't be not huge if you aim to compare the spatial patterns and trends. There is no need to create differences or calculate metrics between those statistics.

We will describe this in text and add a figure to the paper that includes these dates according to the half flow date (Eq. 1) and center of mass (Eq. 2) based on a water year starting Oct 1st. This approach makes dates more homogenized across Europe (see Fig. below). We will point this out and discuss their relative patterns and interpretations.

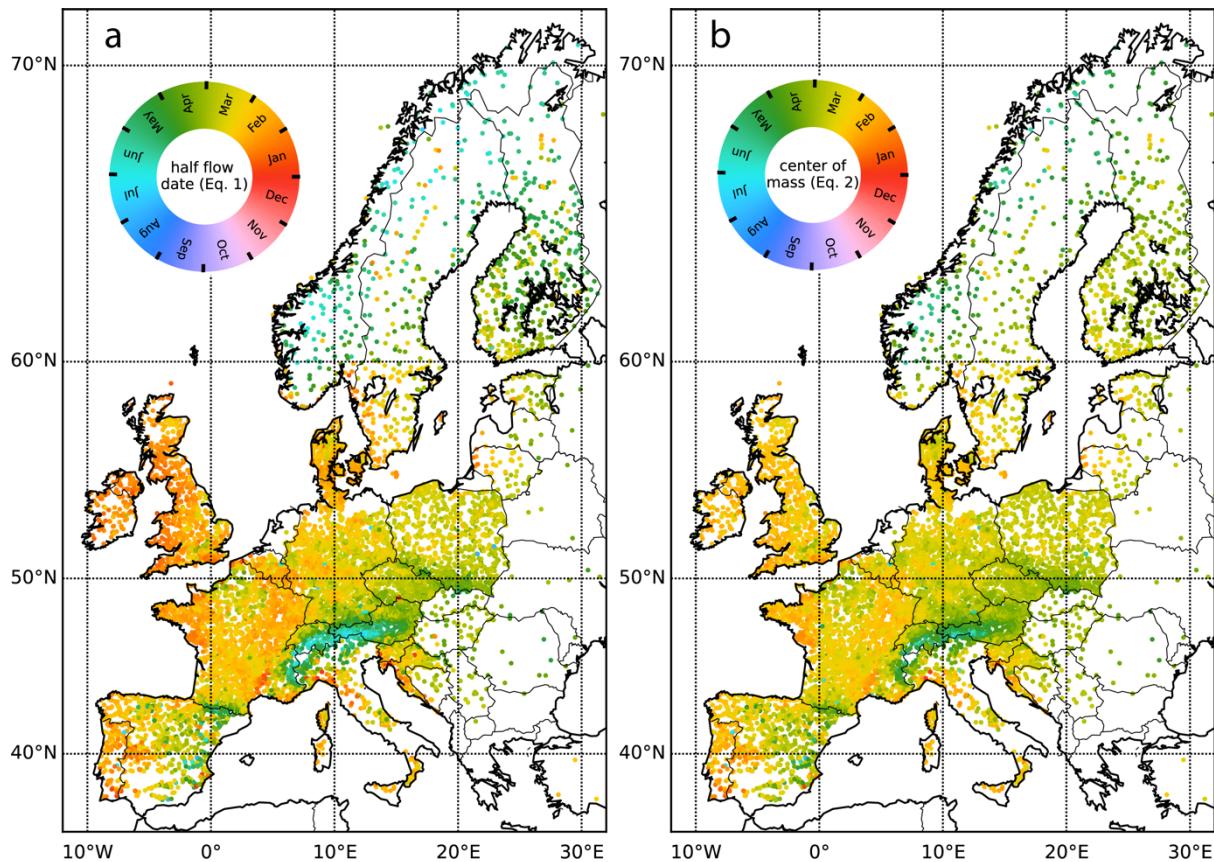


Fig. Seasonal timing of flow regimes (without directional statistics) according to the half flow date (Eq. 1) and center of mass (Eq. 2) based on a water year starting Oct 1st.