EGU2020-4240, updated on 29 Oct 2020
https://doi.org/10.5194/egusphere-egu2020-4240
EGU General Assembly 2020

What we talk about when we talk about seasonality?

Ola Kwiecien[1,2]

[1]Ruhr-University Bochum, Sediments & Isotope Geology, Geosciences, Bochum, Germany (ola.kwiecien@rub.de)
[2]Northumbria University, Geography & Environmental Sciences, Newcastle, UK (ola.kwiecien@northumbria.ac.uk)

The concept of seasonal changes is traditionally understood as a consecutive follow-up of four seasons, spring, summer, autumn, and winter (in the mid-latitudes); or wet/ dry season alteration (in low latitudes). Intuitively, the term 'seasonality' usually refers to temperature or moisture gradients throughout a year. These gradients determine the composition and dynamics of natural ecosystems and agricultural strategies; as such seasonality is a key parameter when describing modern and past climatic and environmental conditions. Consequently, changes in seasonality are often called for as the ultimate driving force of observed changes, but there is more to them than meets the eye. Most importantly there is an essential and often overlooked aspect of external, orbitally-driven seasonality, and internal, regional-to-local responses to these changes.

What does 'increased' or 'decreased' seasonality actually mean? Can we quantify this change? And is the amplitude all that matters? What about temporal distribution? Does temperature and precipitation always respond symmetrically and harmonically? My contribution is aimed at raising awareness, caution and precision when referring to seasonality changes. Come to my poster and let's discuss it!