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**Alice Hedenlund**

University of Oslo

# Spectral sequences via décalage

**Abstract:** Décalage was first introduced by Deligne in his work on Hodge theory and provides us with a way to construct a new filtered chain complex from an old one, in a certain way. Thinking of spectral sequences as a way to process the data available in a filtration, one can roughly think of the décalage machine as providing us with a way to encode "turning the page of a spectral sequence" on the level of filtrations. Although not originally phrased in this way, décalage can be made sense in terms taking connective covers of a filtration in a certain $t$-structure on the category of filtered complexes called the Beilinson $t$-structure. This allows one to generalise the construction also to filtered objects in other stable $\infty$-categories, such as spectra. In this talk, we show that the language of the Beilinson $t$-structure and décalage provides access to highly structured results on filtered spectra and their associated spectral sequences. This is joint work with Achim Krause and Thomas Nikolaus.