

**Figure 1**. Comparison of principal component (PC) scores along averaged running cycle sequences (from right foot strike to right foot strike) for different running speeds of experienced runners (N = 19) on a treadmill for the technique element "foot track width". The technique element measure (= PC) resulted from a PCA of instructed trials (running with demonstrative small and large track width) conducted with another group of experienced runners (N = 20). On the left, configurations of the corresponding extracted principal movements are plotted for the 10 (red) and 17 km/h (blue) trials at the time point, where the waveforms of these two speeds differed the most (vertical black line). Sections of statistically significant differences between 10 and 17 km/h from post-hoc analyses after statistical parametric mapping (SPM) with a repeated measures ANOVA design are marked by horizontal lines (\*\*: p < .001, \*: p < .05). Waveforms and configurations illustrate the means over all participants.