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Dimensional complexity of posturographic signals: ii. Influence of window width on dimensional complexity estimation.

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To properly estimate dimensional complexity (DC) from a time series some requirements should be met as to signal re-cording. Moreover, some parameters necessary for reliable reconstruction of chaotic character of the series should be assessed. In this paper, we calculated the influence of an embedding parameter, window width (W), on dimensional complexity (DC) of posturographic signal. To this aim we used posturographic signals from 32 young healthy partici-pants. Our results indicate that no clear value of W can be determined because plateau-segment in the plot DC(W) was not found. For further analysis, the values of W=0.2-1s seem to be suitable for investigations of postural reflexes and the values of W=1-10s for slow movement of center-of-mass examination.