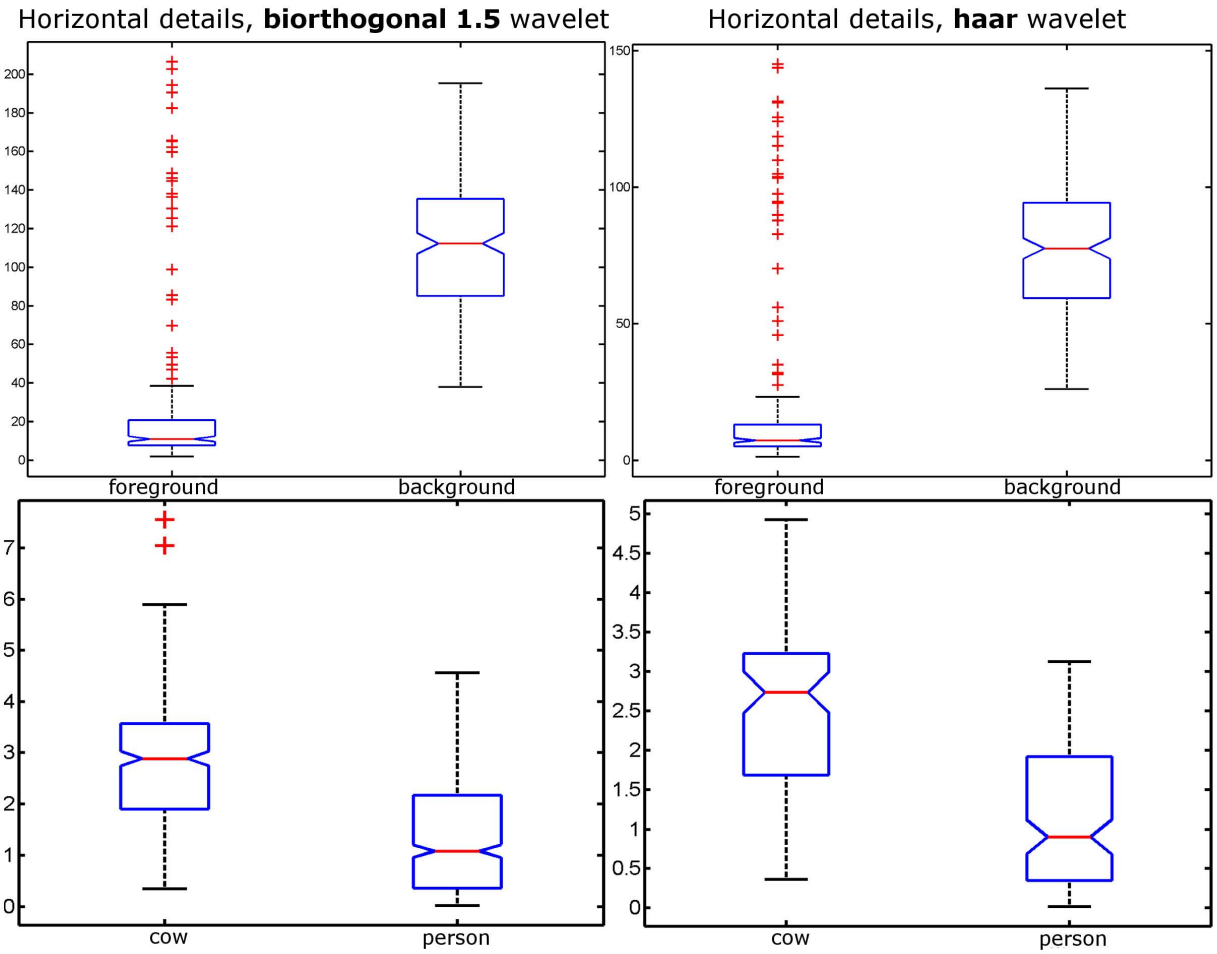
Developing a multi-Kinect-system for monitoring in dairy cows: object recognition and surface analysis using wavelets – Supplementary Figure S2

J. Salau, J.H. Haas, G. Thaller, M. Leisen, W. Junge

Corresponding author: J. Salau, e-mail: jsalau@tierzucht.uni-kiel.de, phone: +49 431 8802572
Institute of Animal Breeding & Husbandry, Kiel University, Olshausenstraße 40, 24098 Kiel, Germany



Boxplots of the averaged absolute values of reconstructed horizontal details from decomposition level 1 in comparison between the haar and the bior1.5 wavelet; the underlying sequences were recorded by the camera in sideview position. The red line specifies the median, and the boxes' lower and upper boundaries are determined by the lower and upper quartile values. The whiskers' lengths are 1.5 times interquartiles' range, and the red symbols "+" denote outliers. The boxplots were generated using the MATLAB function boxplot.m with the non-default parameter 'notch'. Comparing image fore- and background, the considerably different level in heights of the lines indicating the medians could be seen. The height of the boxes belonging to the details in image foreground is only about a third of the boxes' height concerning the background details, but the presence of widely spread outliers with regard to the foreground details has to be noticed. Their range exceeds the full lengths of the boxes' whiskers regarding the background details. The boxes in the diagrams for the comparison between averaged detail values on cows' or persons' surfaces are more homogeneous. As the boxes' notches do not overlap, significant effects of the image region as well as the species are implicated.