Fig. 8. Temporal evolution of the $H_s$ estimate made by the MLP-based method for the training and validation data sets of the Ekofisk database.

Fig. 9. Scatter plots of significant wave heights measured by the buoy and estimated by the standard method or proposed MLP-based estimators for the training and validation data sets of the Ekofisk database.

for bimodal sea states (swell and wind-generated waves are strong) with very high $\lambda_p$ values, being observed for $H_s \in [4.5, 5.0]$ m. These outliers concern only to a few data of the designing data sets, being it the reason why the MLP is not properly learning from the environmental conditions of these data. In other words, the MLP is learning from the environmental conditions of the majority of the data.

And second, there are still some $H_s$ underestimations, but they are lower in number than for the standard method and not predominant because the mean error of the $H_s$ estimate is close to 0 m.