## Summary of LainePoiss<sup>®</sup> accuracy

For a comprehensive validation the reader is reffered to: Alari, V., Björkqvist, J., Kaldvee, V., Mölder, K., Rikka, S., Kask-Korb, A., Vahter, K., Pärt, S., Vidjajev, N., and Tõnisson, H. (2022). LainePoiss<sup>®</sup>—A Lightweight and Ice-Resistant Wave Buoy. *Journal of Atmospheric and Oceanic Technology* 39, 5, 573-594, available from: <<u>https://doi.org/10.1175/JTECH-D-21-0091.1</u>> [Accessed 04 October 2022]

LainePoiss<sup>®</sup> was validated through:

- 1) sensor tests,
- 2) wave tank experiments,
- 3) a field validation against a Directional Waverider,
- 4) an intercomparison of several buoys in the field, and
- 5) field measurements in the Baltic Sea marginal ice zone.



Comparison of LainePoiss<sup>®</sup> significant wave height (blue) with Directional Waverider (black) significant wave height in October 2020 at the Helsinki Archipelago.

These extensive field and laboratory tests confirmed that LainePoiss<sup>®</sup> is accurate:

- the **bias** of significant wave height in the field was **1 cm**,
- with a correlation of 0.99 and
- a scatter index of 8%;
- the mean absolute deviation of mean wave direction was 7<sup>0</sup>.