

# ***Interactive comment on “X-Band Radar for the Monitoring of Sea Waves and Currents: A Comparison between Medium and Short Radar Pulses” by Giovanni Ludeno et al.***

## **Anonymous Referee #2**

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This study compares results of X-band radar measurements of nearshore waves operated by different conditions: short pulse mode vs medium pulse mode.

Sea surface current speed and direction, peak wave period, length and direction, and significant wave height estimated from short pulse and medium pulse measurements are discussed.

The display of the results are basically reasonable, and differences of the measurements with short and medium pulses are well described.

(a) The reviewer couldn't understand the merit of medium pulse measurement. It seems that short pulse is obviously the preferable mode for nearshore wave and cur-

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rent observation. Is there any reason to measure these item with medium mode? The authors must tell the advantage(s) of medium pulse mode observation.

(b) Please consider to show spatial distribution and temporal variation of backscatter intensities along a transect and at a location, respectively, for Figure 2: short and medium pulse modes. This will help to understand the difference of sharpness of the backscatters.

(c) Figure 4: Current estimations have discrepancies between short and medium pulse modes. Is this due to the difference of wave periods estimations as shown in Figure 6? In Figure 6, the wave lengths and directions have almost no difference, but the wave periods are estimated differently.

(d) Please show measured peak wave periods with the buoy data into Figure 6.

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