



Relationship between visual and instrumental wave heights: Case of Spain

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Only behind the United States, Spain is currently the second country in the world in wave measurement and recording systems installed. Nevertheless, up till not so long ago, visual wave observations constituted the most important set of data available when characterising the maritime climate on Spanish coastlines. And even today, using visual observations as a supplement to instrumental data is still fundamental on many occasions, since an extensive series of data in time and space is available from visual observations – in the order of 50 years at some points -. It is thus fundamental to know how visual observations and instrumental data can be correlated such that they complement each other.

This paper reviews the state-of-the-art and constitutes a critical discussion of the different correlations existing between visual wave height and significant wave height—a variable which results from the statistical processing of instrumental data –, such as those of Nordestrom, Hogben and Lumb, Cartwright, Jardine, Guede Soares and Bores. The advantages and disadvantages resulting from the use of each of them are highlighted, making particular reference to the case of the Spanish coastline.