



Wave records and freak waves

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Recently some evidences of freak waves have been found all over the world. 25-30 accidents have been reported to happen yearly due to them (Pelinovsky et al.). However direct measurements of freak or rogue waves is not easy. The main reason for it comes from its elusive quality as pointed out by researches and observers. Therefore to approach the problem we have to use whatever tool is available for us. One of them are wave records from buoys deployed near the presumed location. Thus we have to look for freak waves using data that have not got, in general, any anomalous wave (from the usual definition) but they present some characteristics that make it probable to induce its formation.

We are going to carry out the analysis of the wave records close to locations where some accident has taken place, assuming nonlinear focussing as the framework of the involved theory. According to Janssen and Onorato et al. the main parameter to consider is kurtosis and through it the related BF index (BFI). This procedure, uniting statistical properties of random seas and a powerful theory, could in a near future to help us to foretell the appearance of rogue waves.