

# ***Interactive comment on “A comprehensive data quality evaluation method for the current of marine controlled-source electromagnetic transmitter based on Analytic Hierarchy Process” by Rui Yang et al.***

## **Anonymous Referee #1**

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Marine instruments for electromagnetic detection are well known to be difficult to make. One of the difficulties is the control of the transmitter, which pumps a huge amount of electrical current into the seawater. The quality of the output current need to be monitored the ensure the measured data are usable. The work presented in this paper proposes a new approach to do the quality control. I think it solved a very important issue in high-power marine electromagnetic instruments.

However, marine electromangetic technology is a very money-intensive and quite narrow subject. Not many researchers are in this area. To better attract a wider reader-

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ship, I suggest the authors add some comments on how this new technique can be used in other instruments, for example, the EM transmitter designed for land surveys or borehole geophysics.

I also think the computing time or the costs of running this method should be mentioned. It makes sure the new method is practical in the sea.

The authors used "mutation" for many times to refer to fluctuation or variation. Please check whether this usage is appropriate.

I am also curious if the introduction of the proposed method will change how a marine electromagnetic survey is carried out or how the data should be processed in comparison with the common practice.

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