

# Review of: "Numerical Evaluation of a Soliton Pair with Long Range Interaction"

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**Potential competing interests:** No potential competing interests to declare.

Dear editor/authors,

In this manuscript, the authors have determined the interaction energy of electric or magnetic monopole pairs, sources and sinks of a Coulombic field. The monopoles are represented by topological solitons of finite size and mass, described by a field of  $SO(3)$  rotations without any divergences. Also, they investigate in detail a first observation of the increase of the elective charge at a few soliton radii in this purely Coulombic system and compare it with the running of the coupling in perturbative QED.

General speaking, the manuscript is well written and organized. For these reasons I can recommend the acceptance of this paper. However, before that the Editor makes a decision, I suggest that the authors take into account the following questions:

1. Solitons are the localized wave solutions that are induced due to balancing of nonlinear and dispersive effect in the medium. What is the connection between them and reported soliton pair with long range interaction? Some literature related to soliton should be added in the introduction i.e.

<https://doi.org/10.1007/s11082-023-04904-8>, <https://doi.org/10.1016/j.chaos.2023.113436>,

<https://doi.org/10.1016/j.cnsns.2022.106818>

1. What is the motivation of this work?
2. The author should thoroughly read the manuscript and remove the typo mistakes i.e. see Eq. (A.9), Eq. (A.10) etc.

After a careful reply to the manuscript by the Authors, this manuscript may be considered for acceptance.