This paper implements a boundary element solver for the Helmholtz equation, with application for modeling ocean surface waves in mind. Thus, boundary conditions relevant for ocean surface waves are discussed and implemented. The showcase in the paper looks reasonable and good. The code, based on the boundary element method, should be fast. This code can be a useful, cheap exploration tool for ocean surface wave study.

However, the presentation in this paper needs major improvement, especially in Section 2. The connection between surface wave physics and the Helmholtz equation should be made more explicit. Derivation of the BEM should be extended for an oceanography audience. More detailed comments are below:

1. The beginning of section 2 and 2.1 is confusing. While it is clear that the goal of the setup here is to arrive at the Helmholtz equation, the surrounding material is arranged in a confusing way.
   (a) It would perhaps be better to start from linear surface wave theory, which includes (2-4), (6-10), and (29-31), and derive the Helmholtz equation with clear assumptions stated.
   (b) Starting with the linear wave equation is not common for ocean surface waves, which in general are dispersive. Did you assume the shallow water limit here, or does it only hold for one wavenumber? Additionally, the ∇ in (1) seems to be 2D, while the one in (2) is 3D.
2. (11) The left-hand side seems to contain a typo mixing up the ψ and φ.
3. (14): The 1/2 factor assumes locally straight boundary. However, examples in the rest of the paper include sharp edge angles in the boundary. The expression here should be more general.
4. (14): Additionally, the steps skipped are useful for the readers to understand how to obtain the solution in the interior based on the boundary.
5. 2.2.1: Does the singularity in the boundary integral need numerical special treatment?
6. (28) should be the definition of $\nabla\varphi$, not its normal component, which is a scalar.
7. There are some listings showing code in this paper. To me, this is better achieved by pointing to code in the repository, instead of printing it in the paper. I am also unsure if GMD in general encourages printing out code in the paper. The editors might want to chime in here.
8. Section 3.2 right now is not useful. At least point to the test code in the repository.