

Interactive comment on “Continuous seiche in bays and harbors” by J. Park et al.

Anonymous Referee #2

Received and published: 9 December 2015

This paper focuses on the study of continuous seiche in bays and harbours. The authors investigated seiche at six different locations and conducted an analysis in order to demonstrate that tidally-forced shelf-resonances is the primary driver.

I think that the topic is suitable for the journal and the paper should be accepted after revision after addressing the comments given below.

Paper Structure I think the paper structure could be significantly improved. The paper lacks of a method section that help the reader to understand how the analysis will support the main conclusions of the manuscript. Section 3 is a very short section that could be included in Section 2. Also, the authors should consider to discuss/present the results in terms of the bay geometry similarity in order to extend the conclusions of this work to other locations and hence re-organized the material presented in Section 4. Also, the paper lacks of a discussion sections to put in perspective the present

C1287

findings with respect to previous studies at the same locations. Finally, the conclusions presents a summary and discussion of the paper and hence should be re-written and significantly shortened.

Resonance analysis

To my knowledge in order to identify resonance it is required the analysis of at least two signals obtained at different locations. These spatially separated signals should have: (i) a highly coherent variance in the water level, (ii) a phase relationship corresponding to a standing wave conditions (cross-spectra of the two signals) and (iii) an amplification of the water level at a given frequency. In order that resonance is demonstrated all of the above must be satisfied. Thus, I encourage the authors to present such analysis (i-iii) at those locations where data is available.

Interactive comment on Ocean Sci. Discuss., 12, 2361, 2015.

C1288