Natural Hazards
and Earth System
Sciences

Discussions

Interactive comment on "Randomly distributed unit sources to enhance optimization in tsunami waveform inversion" *by* I. E. Mulia and T. Asano

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Received and published: 12 August 2014

Manuscript Number: OE-D-13-00728

The followings are questions and comments: 1. How long the observed data are used for t in Eq.(3) for inversion. 2. What kind of Green's function is? Concrete 3. What is the relation between w_i in Eq.(3) and a_i in Eq.(13)? 4. What is the initial Green's function and the final one? 5. Are all eight wave observation stations's data used simultaneously in Fig.1? 6. In Fig.4, the artificial source was made form 28 points, and the GAPSr model estimated different points although the sea surface deformation is well represented by GAPSr model. The objective is to estimate the initial tsunami source. 7. In Fig. 5, the time and interval at 8 wave observation stations are different? Are these data used simultaneously? Or how to use the data?

The followings are recommendations: 1. Flowchart of estimation using GA and PS helps how to determine sources. 2. If there are several observation stations and data exist, all the data for same time and interval had better be used without choosing the data for systematic procedure.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 3659, 2014.