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Interactive comment on "A wavefront orientation method for precise numerical determination of tsunami travel time" by I. V. Fine and R. E. Thomson

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We thank the reviewer for his/her generally supportive comments and suggestions. In response, we considered the possibility of comparing both the conventional and wavefront methods with numerical modeling results, but came to the conclusion that such a comparison would essentially address a separate problem entirely, namely a comparison between arrival times obtained by dynamical modeling (such as finite difference tsunami simulation) and by kinematic modeling based on Huygens' principle. The problem involving numerical modeling was partially addressed by Kowalik (2005), who shows that the arrival time obtained by dynamical modeling strongly depends on

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a wave amplitude threshold. What the reviewer suggests might the basis for a separate study. In the present case, we think it is best to focus only on the efficiency and accuracy of the Huygens principle used in in both the conventional and wavefront methods.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 895, 2013.