Dear Reviewer,

We have read carefully your review of our article entitled, "Speeding up and boosting tsunami warning in Chile", written by Fuentes M.[1], Arriola, S. [2], Riquelme S. [2], and Delouis B. [3], from (1) Department of Geophysics, University of Chile, Faculty of Physical and Mathematical Sciences, Santiago, Chile, (2) National Seismological Center, University of Chile, Santiago, Chile and (3) Géoazur, Université de Nice Sophia Antipolis, Observatoire de la Côte d'Azur, Nice, France.

We are grateful for the time you spent to review our paper, for all your comments and useful suggestions to improve the manuscript. In the following paragraphs we present in detail the answer to all questions, comments and suggestions you made.

Best regards,
Mauricio Fuentes.

General comments

Reviewer: Please make the following corrections before publication
On Page 2, Line 1, the text reads "it allows to obtain a moment tensor solution within 5 minutes". In my opinion the authors should clarify whether they refer to an actual capability already made operational as part of the Chilean tsunami warning system, or to the not-yet-realized possibilities of the Wphase CMT method. Listing some operational examples would also help legitimize the 5 minutes claim. Such Wphase CMT processing speed might currently turn possible only in a few regions of the world, including Chile, given the higher level of instrumentation needed to achieve such results. My comment has to do with the fact that in our experience there exist a significant difference between research done in academia and the actual implementation of a method or technique as part of a robust 24/7 monitoring system. If the statement regarding the attainment of a moment tensor solution within 5 minutes applies to the Chilean tsunami warning system currently in operation, then the paper would also benefit from some clarification of whether it uses seismic, GPS data, or a combination of both.

Response: Thank you very much for your observations. He have clarified this point regarding the W-phase in the text and also including a new reference.

Specific comments:

Reviewer:

Page 2, Line 2: "...however, that tsunami heigts are…"
→ ...however, that tsunami wave heights are…

Page 2, Line 13: "...data with 15 arcsec of resolution..."
→ ...data with a 15 arcsec resolution…

Page 2, Line 23: "...determined with the scaling laws obtained by Blaser et al. (2010)."
→ ...determined by applying the scaling laws after Blaser et al. (2010).

Page 2, Line 24: "With ny = 16 the studied cases have enough resolution on the source area".
→ After setting ny = 16 all the earthquake cases analyzed in our study have enough resolution on the source area.

Page 2, Line 30: "...as sugested in Tanioka…
→ ...as suggested by Tanioka…

Page 3, Line 10: "...in a vertical wall placed at an isobath of 100m,..."
→ ...in a vertical wall placed at the 100 m isobath,...

Page 3, Line 12: "...to obtain a quicker..."
→ ...to obtain a faster…

Page 4, Line 1: "...on the classical finite..."
→ ...on the classic finite…

Page 4, Line 4: "This is usually on the same order with the actual runup in..."
→ The resulting runup values are in the same order of the actual runups for…

Page 4, Line 10: "...have proven to be operationally..."
→ ...have proven operationally…

Page 4, Line 27: "The extension of the earthquakes..."
→ The geometry of the earthquakes' causative falts…

Page 7, Line 10: "This makes sense since…
→ This makes sense, since…

Page 9, Line 8: "...equations to model more than 80% of the runups..."

→ ...equations. Implementation of this method allows to model more than 80% of the tsunami runups

Page 10, Line 1: "...of the runups using..."
→ ...of the tsunami runups using…

Page 5, Line 4: "...in a flow chart (Fig. 6)."
→ ...in the flowchart shown in Figure 6.

Page 5, Line 8: "...a fast runup estimation..."
→...a fast tsunami runup estimation…

Page 5, Line 9: "...time we estimate…
→ ...time we can estimate…

Answer: We have included all these suggestions.