



# ***Interactive comment on “SWRT: A package for semi-analytical solutions of surface wave propagation, including mode conversion, across transversely aligned vertical discontinuities” by Arjun Datta***

## **Anonymous Referee #2**

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The paper entitled “SWRT: A package for semi-analytical solutions of surface wave propagation, including mode conversion, across transversely aligned vertical discontinuities” is an interesting and original work that explain in detail a software package to obtain semi-analytical solutions for surface waves across vertical discontinuities. The work is within the aim of the GI publication and it presents novel and interesting method. Abstract summarize properly the contents of the article, and the structure of the paper makes it clear to understand. References are enough in number and quality. The paper gathers several known algorithms for computation of seismic waves dynamics and im-

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plement them to obtain the mode-coupling for Love and Rayleigh waves in 2D models. The work is completed testing the code with an incident fundamental mode.

Figures are clear enough but I will suggest some modifications in order to make them more clear:

- In Figure 2, (left) mode 4 cannot be seen. Is too close to the horizontal axis
- In figure 4, modes different from mode 0 cannot be seen since they are close to the horizontal axis. Please, consider the possibility of adjusting the vertical axis as done in figure 6.

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