

## *Interactive comment on* "Multi-quadric collocation model of horizontal crustal movement" *by* G. Chen et al.

## Anonymous Referee #1

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General comments: This paper 'Multi-quadric collocation model of horizontal crustal movement' has conducted a study on modelling the horizontal crustal movement of Chinese mainland. They have worked on deriving the collocation model and multiquadric function for covariance constructions. In general, the overall quality of this paper is okay, the English can be further improved, and the structure is slightly loose, I think motivation can be better presented in the introduction.

Specific comments: 1. Page 3364, the end of first paragraph, 'Moreover, different researcher can obtain different covariance ...'. This has to be explained, why and how they were end up with different covariance with the same data and principle? 2. As mentioned above, the motivation of this study has to be clarified. What's the practical purpose of this derived model? 3. Page 3370, please all add argument why these four

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calculated solution have been chosen for evaluation? You can add up a few words for every scheme. 4. Figure 1 has to be better discussed in the text. Please conclude the information one can obtained from the Figure 1. Also, the axes should be explained in the captain.

English suggestions: Page 3371, line 8 'a deep analysis' -> 'a comprehensive analysis' Page 3367, line 9, remove 'etc'; line 8, 'are' -> 'is ' Page 3361, line 13, remove 'and difficult problems'; line 18, 'determining' ->'to determine' Page 3371, line 22, ->'not a single block' Page 3367 line 16-17, please check the grammar of this sentence.

Interactive comment on Solid Earth Discuss., 7, 3359, 2015.