

Interactive comment on “Multi-quadric collocation model of horizontal crustal movement” by G. Chen et al.

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Comparison with different interpolation methods in a specific case is usually focused on, and is of some great importance to get reliable result eventually. Here, the authors did a lot of tests to verify the reliability and stability of the method they presented. It is a valuable work for reference.

And there are some comments for authors to think about: 1) As we know, the whole Chinese mainland consists of many blocks or subblocks. In other words, is it appropriate to regard it as a rigid body with some internal deformation for testing these methods? I suggest authors to test some regional areas, such as South China Block, which has more rigidity, to see if the results would change a lot.

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2) The horizontal movement of each GPS site is always regarded as the addition of the whole block rotation and local deformation within the block. Here, authors regard the former as a systematic process, while the latter a stochastic signal. However, the latter is actually also linked with some specific geophysical process, such as the postseismic deformation, seasonal changes and so on. What is the influence of these 'unreal' stochastic processes on the results?

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

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