



## ***Interactive comment on “A critical discussion of the electromagnetic radiation (EMR) method to determine stress orientations within the crust” by M. Krumbholz et al.***

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M. Krumbholz, M. Bock, S. Burchardt, U. Kelka, and A. Vollbrecht give a detailed discussion of the electromagnetic radiation (EMR) method to determine stress orientations within the crust. In the past years this method has gained significant interest especially in the tectonics research groups. The proposed strength of the method is very tempting and potentially extremely useful. Therefore this contribution is of vital importance and has a significant impact.

There are, however, several points that would make this contribution even more strong. First, I urge the authors to be careful with their interpretation and language they use.

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If you accuse other authors of not being objective then you should be careful with your own wording. Other authors would oppose to your accusation that the method was not objectively tested. In the discussion I would be careful to use wording like "These facts are continuously neglected" (page 1008, line 16). "Wrong assumptions regarding the interpretation of the receiving pattern of the antenna" in page 1009, line 11, what do you mean? The whole contribution would benefit from a more open discussion of the problems of the EMR.

In agreement with reviewer number 3, I think we really need an opinion from Reuther, Lichtenberger, Obermeyer or Greiling on this matter. I urge the author or the editor to invite them to give a comment. We can only resolve this if it is openly discussed or at least offer these authors the opportunity for discussion.

I would also like to hear a bit more about potential future tests of the method. Maybe one should test the Cereskope first in the lab? Your last sentence is: page 1011 line 8 "Since the principles of the method based on laboratory studies are convincing, future work with the aim to use crack-related EMR as a tool to study crustal stresses is desirable" - > What do you mean by that? The reader is left alone now. First you are very negative but then suddenly you think it does partly work in the end? I think you have to explain this a bit more.

Its very good work but it could benefit from being a bit more open, should include some comment by authors that used the method before and could do with an additional discussion on "where to go now".

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Interactive comment on Solid Earth Discuss., 4, 993, 2012.