

I thank the authors for considering my comments and implementing them in the second version of the manuscript. Compared to the previous version, the current manuscript is much clearer. Also the GIFs really help interpreting the evolution of the models. Except for some minor aspects, I have no further suggestions.

General comments

The newly added paragraphs seem to be stitched into the manuscript and sometimes interrupt the reading flow. I think it would be worth refining the transitions and maybe reordering the paragraphs for a more seamless integration into the manuscript. An example is given in my specific comments below.

The difference between models that do not include a rifting phase and those presented here could still be discussed in more detail. If modeling the rifting phase is important for the convergence model, what do the presented models predict that pure convergence models with prescribed weak zones fail to predict?

A brief description of what happens in each GIF in the supplement would help the reader to interpret the evolution of the models.

Specific comments

line 14: fold-thrust belt (remove the whitespace)

line 15: fold-and-thrust belts or fold-thrust belts (as in line 10)? Please, keep consistent nomenclature for clarity.

line 17: fold-and-thrust systems maybe?

line 101: I would remove „On the other hand“ and combine this paragraph with the previous.

line 105: It would be interesting to read more about the potential of hydrocarbon exploration in the Zagros (also mentioned in the abstract, but I didn't read much about it in the manuscript) here and read a discussion on your findings in that context later in the manuscript.

line 125: After introducing the abbreviation, use ZFTB throughout the rest of the manuscript.

line 268: As far as I understand, the basement faults formed during the Permian-Triassic rifting phase, i.e. they should result from the rifting model and serve as initial condition for the convergence model. Why are they already present in the initial configuration of the rifting model?

lines 281-282: It should at least be acknowledged that the quiescence period has an impact on the thermal field (as mentioned in my comments), because the temperature influences the rheology which is an important aspect of this study. Why is it justified to make this simplification?

line 310: Kappa has been used in the temperature equation. For clarity, it would be better to either use different symbols or subscripts for Kappa in these two equations.

lines 454-456: An indication of coordinate would help to identify the pop-up structure.

line 477: This is confusing: is it 25% or 75% of v_x ?

Figure 11: I guess the y-axis in panel e should have labels of 0, 5, 10, and 15 TN/m instead of 0, 5, 1, 15 TN/m.

line 525: Use either illustrates or shows.

line 594: How much larger is „slightly larger“?

line 616: Exhibited or demonstrated?

lines 674-677: This paragraph disrupts the reading flow. I would move it to the end of this section.

Table 1: In the column header of thermal conductivity, the unit of power should be a capital letter. I guess the unit of cohesion (C) should be MPa instead of MPs.

GIFs: I could not find references to the GIFs in the manuscript. They should be referenced in the text, otherwise the reader has no context when watching them.