Thermal continentality and its changes in Slovakia in the period 1961 – 2013
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<u>Some general comments and suggestions:</u>

Title:
Expression <CHANGES> suggests that there are some ... The results confirm almost no spatial and temporal differentiation, the Authors emphasize that the temperature amplitude is a "conservative" index ...

Abstract:
Does not give the general information about the work done. The aim, data, methods and the results should be described in a very concise form.

Introduction:
The paragraphs could be a little bit more organized ... It would be valuable to have described the general findings of the literature cited (to emphasize the value of the study itself) ... The AIM of the study is not precised clearly; Is the analysis of the changes in the thermal continentality within the given period the aim? If so - please specify at least what changes ...)

Material and methods:
Paragraph 2.2 can be involved into temperature data description. Are mountains stations - especially Skalnate Pleso - highland stations? In different parts of the study they are named as mountains or highlands stations - no consistency. Moreover, if the main reason of choosing the 6 stations was a geographical location (as stated in the first sentence) there is a pity that none of them represents the western part of the country (taking into account the essence of continentality)

Paragraph 2.3: There should be explained why those indices have been selected. As the annual temperature amplitude is the main variable in all indices, a short introduction to the paragraph (regarding the essence of the amplitude) is advisable. The methodological question arises - what differences were expected by the Authors to find as the indices are based on the same parameters? Probably introducing a different index, taking into account any different variable (as Johansson-Ringleb formula based on spring and autumn temperatures – for example) would bring a new light into the results …

The whole paragraph <2> lacks the information about the methods used in the study (except for the indices description): spatial and temporal differentiation analysis, long term trends …

Results (the structure of the chapter could be reorganized):
3.1 The paragraph needs the introduction about temperature spatial differentiation (in general) – to highlight the differences in temperature amplitude described in following chapters (probably the parts moved from stations descriptions would be enough). There is no annual mean temperature variability presented on the graphs so probably it would be valuable to change the order of the paragraph starting from temperatures of the coldest and the warmest months …
!! The use of maximum and minimum temperatures is very misleading here and cannot be accepted as they are totally different parameters.

3.2. There is no further comparison/discussion/comments except for statistical description of the selected indices … The only conclusion in that part is that Gorczynski index is the best as being sensitive to longitude and elevation what seems not to be justified …

3.3 As mentioned before (par. 2.3) - because all the indices are based on the same parameters with the only contrast in constant values it is not surprising that there are almost no differences in long-term trends (table 4). Unfortunately there is no discussion on the point … R^2 statistical characteristics means coefficient of determination and describes how well the regression line approximates the real data and cannot be interpreted as the intensity of the tendency.

Conclusions:
The paragraph lacks the convincing arguments for the results of the study. Some general (well known) remarks appear (as spatial differentiation of thermal continentality towards East in Slovakia located in Central Europe, the lowest values of the indices in high mountains). It is difficult to find out what are the main achievements of the paper …

Detailed comments (as noticed, also many misprints that are not listed below):

Page 2, line 2 – references should be in brackets

Page 2, line 6 – the complete reference is Brazdil et al. 2009

Pages 7-8 – R^2 values given with different precision

Page 8, line 30 and 32 – temperature values given with different precision

Fig. 1 – probably map of Central Europe would be more informative than almost the whole continent

Fig. 2 – not interpreted, therefore there is the question if it is necessary for the topic

Fig. 3 – the coldest and the warmest months described in a legend as min and max – misleading !!, the X –axis interval could be bigger to make it more readable

Fig. 4 – lacs the continentality indices units

Tab. 1 -- the coldest and the warmest months described in a table as Tmin and Tmax – misleading, inconsistent … in the figure capture the descriptions are exchanged, i.e. coldest (Tmax), warmest (Tmin)

Tab. 2. – the values given with different precision

Tab. 4. – R^2 is not a linear trend, the values given with different precision