Review of: "Gumbel's Extreme Value Distribution for Flood Frequency Analyses of Timis River"

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Potential competing interests: No potential competing interests to declare.

A period of only 30 years of data is generally too short to conduct studies of rare events such as floods with 100- or 200-year return periods. There should be more historical data in the Timis River basin, and the author should explain why only 30 years of data were used. Also, the map in Figure 1 should show the exact location of the flow monitoring station where the frequency analyses were conducted and explain how the effects of upstream regulation affected the annual peak flows that were selected for this analysis. Flood frequency analyses should be conducted on natural flows that exclude any anthropogenic effects. My understanding is that there are hydraulic structures such as dams and diversions in the Timis Basin. If there are dams and diversions upstream of the flow monitoring station selected for this analysis, the flows would be adjusted by a process called "naturalization" that would remove the effects of diversion and provide estimates of peak flows that would have occurred if no structures were present in the Timis River Basin.

The method of moments is an old approach, and the paper would significantly benefit if it included a comparison of the results obtained with this fitting method with another method, such as the maximum likelihood method. All terms in equation (1) should be explained, as well as the term K in equation (4), and its tabular values should be provided in the paper for typical return periods, such that an independent practitioner could repeat all calculations in Table 1. I also suggest explaining how the reduced variate (Y) is associated with the return period Tp (given that it is published in the table – otherwise, if there is no practical use for it, I suggest its removal).

There is currently no novelty presented here; the paper looks more like an assignment in Hydrology 101 class. Comparing the results between the 30-year data series presented here and a 70-year data series that may be available would provide some insight into the importance of the length of the data series. This kind of analysis should also be conducted by using the maximum likelihood fitting method, instead of the method of moments, and comparing the results of the two methods.