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Interactive comment on "Dynamic maps of people exposure to floods based on mobile phone data" *by* Matteo Balistrocchi et al.

Anonymous Referee #1

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The manuscript describes a method to analyse mobile phone user data for the aim of elaborating dynamic maps of population exposure to floods. The presented method of geospatial analysis is innovative and is interesting for future application in the field of flood risk analyses and flood risk management. The manuscript is well written and the conclusions base on the data and on the results. Thus, I suggest the publication of the manuscript after a few minor corrections. Abstract: The last sentence mentions the application of the method in real-time rescues and reliefs. However, this has not been demonstrated and the application in real-time lacks of a real-time data access. Moreover, real-time hazard maps (dynamic flood maps) are not available yet. Please discuss this need for dynamic hazard and exposure data and its accessibility in real-time in the discussion or conclusion section. Line 105: Please explain the term "Erlang

mobile phone measures" or give a reference to it. Figure 5: The figure is hard to understand. Figure 5a is referred in the figure caption as days a week but shows the months. Moreover, e.g., green color is refereed to days from July to September but the figure shows green also in October. The same is for blue and yellow. Please revise the figure accordingly or add an additional explanation. Lines 1-61 can be shortened remarkably.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-201, 2020.