Comment on nhess-2022-118
Anonymous Referee #2


The authors compared four machine learning algorithms, and derived an optimal model to predict heavy snowfall; however, the method and analysis process used are general and lack novelty.

- In Chapter 1. Introduction, the authors only mentioned previous research, but did not describe this research's superiority such as contributions and novelty of the research.
- In Chapter 2. Materials and methods, it should have mentioned why the four machine learning algorithms (MLR, SVR, RFR, and XGB) were chosen among the other various machine learning algorithms.
- In Chapter 4. Discussion and Conclusions, specific discussions on applicability of the optimal model, which is connected with RCP scenario and heavy snowfall disaster management, should be presented. Furthermore, there were a few sentences to confuse readers (for example, lines 269-272). The authors need to clarify those sentences in the manuscript, and proofread the manuscript before submission.
- Furthermore, there are additional explanation of the a, b, c, and d of figure 5 should be added to make clear to the readers.
- Please add more relevant literature review with up-to-date.