

***Interactive comment on “Wet avalanches:
long-term evolution in the Western Alps under
climate and human forcing” by
Laurent Fouinat et al.***

Anonymous Referee #1

Received and published: 22 March 2018

This paper is of high quality and represents a significant contribution to the understanding of long-term evolution of wet snow avalanches in the Western European Alps. The manuscript raises the question of whether wet avalanche hazards may increase in the near future, especially at higher altitudes. The paper presents novel concepts, ideas, tools, and data and the conclusions reached are based on the presented data. The scientific methods used are all relevant and up-to-date and include lake coring, seismic survey, sedimentary analysis, CT scan imagery, pollen analysis, and dating. The assumptions and hypotheses are valid and clearly outlined in the paper. The presented results in the manuscript fully support the interpretations and conclusions. The description of the methods and results are sufficiently complete and precise to allow their

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reproduction by fellow scientists. The authors give proper credit to related geohazard work and clearly indicate their own contribution. The title reflects the contents of the paper and the abstract provides a concise and complete summary of the content of the manuscript. The overall presentation is well structured and clear, and the English language is apparently fluent and precise. The nine figures and one table are clearly presented and do not need to be reduced, combined, or eliminated. Finally, the number and quality of references are appropriate and no central, relevant references are missing.

Minor technical issues: Page 2, line 25: Delete ‘a’ in 2007a Page 4, line 1 (Heading): Change to: High-resolution seismic survey Page 25: Please put Table Heading above Table 1

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2018-21>, 2018.