

Interactive comment on “Automated snow avalanche release area delineation – validation of existing algorithms and proposition of a new object-based approach for large scale hazard indication mapping” by Yves Bühler et al.

Anonymous Referee #1

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The manuscript “Automated snow avalanche release area delineation - validation of existing algorithms and proposition of a new object-based approach for large scale hazard indication mapping” by Y. Buehler and colleagues is dedicated to automated identification of snow avalanche hazard areas in a large scale.

Authors validated existing potential release algorithms (published in peer-reviewed journals), described the new approach based on object-based image analysis (OBIA) and prepared example numerical simulations in Davos region based on Swiss SLF RAMMS software.

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The described topic is very important and actual for avalanche hazard specialists from all over the world. Especially from regions where there is not much information and experience in snow avalanche hazard.

The manuscript describes a very interesting, well tested and promising approach to cost-effective large-scale snow avalanche hazard mapping. All the new “OBIA procedure” steps are clear and based on the newest top-based international knowledge in this field.

A possible easy transfer of this approach to other regions (also outside the European Alps) is the main strength of this paper. From the scientific point of view, it seems to be a feasible strategy but it needs more research work (what is clearly mentioned by the Authors).

Given the complexity involved, the author has produced a number of positive and welcome outcomes including the literature review which offers a useful overview of current research and policy and the resulting bibliography which provides a very practical resource for current practitioners.

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