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Comment

## ***Interactive comment on* “Impact of rockfalls on protection measures: an experimental approach” by J. Yuan et al.**

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Nice article on laboratory testing of rockfall impacts which are important to better understand the rockfall processes in the field.

Section 2.2:

Do you have experience and can you add something on repetition of single experiments: How much variation/spreading did you observe/expect?

The thesis of James Glover deals with this aspect, see also Glover J, Bartelt P, Petley D, Rosser N (2014) Characteristic rockfall runout behaviour of three end-member rock forms. Geophysical Research Abstracts. Vol. 16, EGU2014-16910.

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Additional literature relevant for the proposed article:

Further laboratory impact experiments are described in the thesis of Barbara Heidenreich, see also: Labiouse, V., Heidenreich, B. (2009). Half-scale experimental study of rockfall impacts on sandy slopes. *Natural Hazards and Earth System Science*, 9(6), 1981-1993.

Performance of cushion layer is also described in the thesis of Kristian Schellenberg, see also: Schellenberg, K.; Volkwein, A.; Denk, M.; Vogel, T., 2008: Falling weight tests on rock fall galleries with cushion layers. In: Volkwein, A.; Labiouse, V.; Schellenberg, K. (eds) *Interdisciplinary Workshop on Rockfall Protection*. Morschach, Switzerland, June 23-25, 2008. Proceedings. Birmensdorf, Eidg. Forschungsanstalt WSL. 99-101.

- or -

Schellenberg, K.; Volkwein, A.; Roth, A.; Vogel, T., 2007: Large-scale impact tests on rock fall galleries. In: Huang, F.L.; Li, Q.M.; Lok, T.S. (eds) *Proceedings of the 7th International Conference on Shock and Impact Loads on Structures*. 17-19 October 2007. Beijing, China. 497-504.

References:

Please, correct Markus, S. and Simone, P. to Stoffel, M. and Perret, S.:

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Interactive comment on *Nat. Hazards Earth Syst. Sci. Discuss.*, 3, 337, 2015.

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