

## **“Geomorphological surveys and software simulations for rock fall hazard assessment: a case study in the Italian Alps”**

Dear Dr Katz, thanks for your comments. We apologize you do not appreciate our article but we do not agree with many of your comments. We reply to the three main points inserted in your review.

### **POINT 1**

You wrote in the first point *“Scientific analysis is lacking”*. Of course, we are not agree. We use a classical analysis of rockfall: source area characterization, triggering factor analysis, definition of possible trajectories, etc. Regarding the two trajectories, they were obtained from ALS survey and topographic map, respectively. The two trajectories were selected using a traditional slope-angle class analysis, developed from Dorren (2003). It is explained in Figure 5.

Moreover, the restitution coefficients were selected using values from references. For each restitution coefficient, there is a range listed in table 3.

These ranges are taken into account from the 2D software during simulations, so the sensivity analyses is not necessary.

### **POINT 2**

You wrote: *“The manuscript is lacking any scientific-structure. It is a mix of paragraph belong to Introduction, Methods (non such paragraph included) and Results all toghether”*.

We are not agree. There is a paragraph, which is named “5.1 Description of the method”, followed from a “Result paragraph”, named “5.2 Rock fall simulation outputs”.

Regarding other minor revisions about titles, we have already changed some titles in the reply to Referee#1, as you suggested for example for paragraph 4.2.

Anyway, if we will receive from the Referee#3 a positive comment, we will try to better clarify the structure of the article.

### **POINT 3**

You wrote: *“The manuscript describes and analyzes a local case study with no novel findings...”*

The journal NHESS often publishes articles about case studies, because is a journal devoted to “natural hazards”.

We think it is an interesting case study related to a hazardous situation located in the Italian Region Friuli Venezia Giulia, which is often affected by severe landslides (i.e. Vajont landslide).

### **Other comments listed in the supplement.**

Pag. (7333) I am agree that the geological description is too long.

Pag. (7334) the meaning of “Traditional surveys”. We will explain suddenly the meaning of traditional.

Pag. (7334) we will change “fissures” into “joints”, as you requested.

Pag. (7335) Figure 2 include a view of Block 12 and 13.

Pag. (7341 and 7342). Your comment “This belongs to the Methods” associated to two sentences is included in the Paragraph “5.1 Description of the Methods”, so we are not agree to modify the position of the above-cited sentences.

Comments to Figures: We are agree that labels on the axis are sometimes not readable.

Thank you for your suggestions, we will used some of them if the article will be accepted from Referee#3

Kind regards

Stefano Devoto