

Interactive comment on “Small sinkhole-like features in alluvial plains: the example of Paganico (Lucca Plain, Italy)” by M. Dell’Aringa et al.

M. Dell’Aringa et al.

rgianneccchini@dst.unipi.it

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Thanks Giovanni Crosta for your interest in this paper. Actually, not all the cavities observed show sub-horizontal tunnels, but only those characterized by a more developed geometry. They are located close to the Paganico wells-field and in some areas near ditches. These aspects addressed the possible mechanism that we have suggested, in relation to a precise hydrostratigraphic structure, which is present only in the area involved in opening of cavities (surroundings of Paganico). However, there is another probable factor that can be considered as local aggravating cause (valid for some cavities), namely the bad superficial canalized drainage of some areas. The

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study area is in fact crossed (E-W direction) by railway, whose bank tends to prevent a correct flow of the superficial water (N-S direction). This sometimes determines the overflow of ditches, and an increase of water infiltration and consequently induce major erosion. Nevertheless, this paper is a contribution in order to provide some ideas in understanding the possible causes of these phenomena, in which the literature is not so large. Thus, new suggestions and ideas are welcome.

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