

Interactive comment on “Defining a Mid-Holocene earthquake through speleoseismological and independent data: constraints for the outer Central Apennines (Italy) seismotectonic framework” by Alessandra Di Domenica and Alberto Pizzi

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General Comments

The manuscript presents new off-fault paleoseismic data from broken speleothemes in a karstic system located in the S part of the Majella Massif. The data are well presented and interpreted. Based on AMS dating, the Authors correlate the event which caused major collapse in the cave system at about 4.5 kyr BP with the event which reactivated

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a very large landslide in the same area (dated at about the same period), and with surface ruptures along the Sulmona fault (again, with similar radiocarbon age). They conclude that the earthquake magnitude associated with this event was in the order of M7, and that this involved surface faulting extending SE of the Sulmona Fault. I quite agree with this interpretation, which is also supported by other literature data (cited in the attached annotated manuscript) on paleoseismic surface faulting in the Aremogna - Rivisondoli - Cinque Miglia area. I suggest to review the manuscript in this line.

Specific Comments are included in the revised version of the .pdf manuscript. Please also check the text for language.

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Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/se-2016-77/se-2016-77-RC1-supplement.pdf>

Interactive comment on Solid Earth Discuss., doi:10.5194/se-2016-77, 2016.

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