Interactive comment on "Transfer of environmental signals from surface to the underground at Ascunsă Cave, Romania" *by* Virgil Drăguşin et al.

Anonymous Referee #2

Manuscript 'Transfer of environmental signals from surface to the underground at Ascunsa Cave, Romania' by Dragusin et al., dealing with hydrological behaviour and hydrogeochemical properties of two caves, fits into the scope of HESS journal and brings new 4-year monitoring data from the region which has not been studied very often. In addition, authors present equilibrators (for CO2 measurements) of their own design, so in terms of novelty, this manuscript fulfills journals requirements. Descriptions of the used methods are generally sufficient, with few exceptions regarding sampling of water and farmed calcite, and drip intensity measurement. Language is mostly fluent, and manuscript reads well, although sometimes it is difficult to follow when numerous comparisons appear in the text while the figures are dispersed

between main text and supplement. As for the figures, they are of appropriate quality, but the figure captions are uninformative throughout the whole text (figure caption should include enough information to enable the figure to be self-explanatory). A location map is essential in order to present the distances between the investigated sites, and their position in European context. Although most of the references are the fundamental works in the field of speleothem science and hydrology, authors should include more case studies dealing with same topic and incorporate them into the Discussion section (from Hungary, Italy, Croatia, Germany, France, Belgium etc.). To conclude, the manuscript provides valuable data regarding transfer of rain and dripwater isotopic signal in Roamnian karst thus will be a useful contribution not only in the local, but in the wider regional (European) framework. However, above-mentioned remarks, as well as those incorporated within the text (attached) should be taken into consideration and corrected in order to be acceptable for publishing.

Please also note the supplement to this comment:
http://www.hydrol-earth-syst-sci-discuss.net/hess-2016-625/hess-2016-625-RC2-supplement.zip