Dear Stefan Kneifel,

Thanks for your interest in the paper and relevant suggestions especially as an exhaustive state of the art is always difficult.
We modified the manuscript accordingly by citing both papers that you mention.
The main difference from Kneifel et al 2009 comes from the much more complex terrain encountered in Passy (2000 m difference of height between the valley and the moutain top and maximum 2 km wide) but also the fact that Kneifel et al 2009 only addresses integrated water vapor retrievals at an elevation angles above 30°. It would have been interesting to investigate the impact on the temperature profiles as elevation scans at 5.4° were discarded in the orography direction.
In Kneifel et al 2010 and Xie et al 2012, radiometers are deployed at 2650m above sea level. Even though the term « above the valley crest » was inappropriate it is interesting to highlight that we are exploring atmospheric conditions and instrumental deployment very different (at the bottom of a 2000 m steep sided valley).
In Xie et al 2012 elevation scans are also only performed above 15 ° with the DPR whereas nothing is mentioned for HATPRO (except if we missed this detail when reading the article). Thus, the retrieval of temperature profiles with low elevation angles down to 5° close to mountain slopes is not investigated neither.
In Kneifel et al 2010, again we could not find a mention to the elevation scans of the HATPRO instrument and temperature profiling was not investigated.

We suggest to modify the discussion into :

Previous papers deploying MWR in complex terrain are not abundant, among them we can cite : Kneifel et al. (2009), Kneifel et al.(2010), Cimini et al. (2011), Xie et al. (2012) and Massaro et al. (2015). In Kneifel et al. (2009) the terrain is not as complex as in Passy with a maximum elevation of only 350 m and only integrated water vapor retrievals are investigated. Both studies of Kneifel et al. (2009) and Xie et al. (2012) do not investigate temperature profile retrievals neither and the radiometer is deployed at 2650 meters above sea level which differs from the deployment at the bottom of the 2000 m deep Passy valley. In Cimini et al. (2011), the terrain is more complex but the 1DVAR is investigated with a global NWP model at a 10 km horizontal resolution and using only one elevation angle in addition to the zenith. The radiometer measurements do not go lower than 15◦ elevation angle which significantly limits the possible perturbation from surrounding mountains. Massaro et al. (2015) deploys the instrument in a valley with a free viewing angle up to 28 km whereas the Passy valley is only 5 to 6 km long in the Passy direction and only focussed on regressions without any comparison with the 1DVAR algorithm. Temperature gradients were also smaller compared to those observed during Passy. This is also the first time, to our knowledge, that the instrument was operated scanning in two different directions down a steep sided valley.