

## ***Interactive comment on “Climate signals in a multispecies tree-ring network from central and southern Italy and reconstruction of the late summer temperatures since the early 1700s” by Giovanni Leonelli et al.***

### **Anonymous Referee #1**

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Climate signals in a multi species tree-ring network. . .

This is an interesting and thoughtful, well written paper that I recommend should be accepted and published in Climate of the Past with minor revision. It describes the generation and analysis of a multi species tree-ring network from central and southern Italy, and a reconstruction of late summer temperatures since the early 1700s based on this network.

Using RW and MXD from 27 sites in Italy (both conifers and some hardwoods), temperature and precipitation signatures were identified, and eventually a late summer tem-

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perature reconstruction based on MXD was generated. There is apparent divergence between observed and reconstructed temperature of about 1 degree C, possibly due to the impact of drought stress.

Para beginning on line 8 of intro: good to reference some of recent modeling studies of subtropical drying due to climatic change in western North America, Mediterranean..(e.g. Seager et al. papers)

This paper has a good general overview/intro re the climate response in Mediterranean trees, which can be quite complex due to multiple influences on growth.

as found elsewhere, rather well behaved MXD temp signal, here linked to drought at high temperatures. would like to see more about the gradient of response to climate in these trees across space and elevation..

Would be good to discuss impact of climatic forcings on the region - e.g. the NAO (warm and cold season).. Also volcanic events - The year 1699 also seen as a cold year/interval elsewhere in Europe, North America following volcanism..

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