

## ***Interactive comment on “Volcanic synchronisation of the EPICA-DC and TALDICE ice cores for the last 42 kyr BP” by M. Severi et al.***

**Anonymous Referee #2**

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As the title states, this paper provide volcanic synchronisation between the EPICA-DC and the TALDICE ice cores for the last 42 kyr BP. This is one of necessary steps to synchronize several deep Antarctic ice cores and Greenland ice cores to make a consistent dating for multiple ice cores. The method seems rigorous to me. Thus I found no major point to criticise or correct in the paper. Introduction is nicely written to show background. I provide only several comments for the authors to consider.

Lines 26-29 in Page 3721 It seems better if more detail of age markers are mentioned. For example, time markers of the orbital tuning.

Page 3723, section 2 A map showing geographical locations would be useful for readers.

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Page 3723, section 2 Information of accumulation rate and annual mean air temperature (or 10-m deep snow temperature) are useful information for readers. I suggest that they are added.

Page 3728, line 18 "20%" Is it more correct to state " ... this means that the Dome C and Talos Dome age scales are consistent, generally within 20% for each duration between two consecutive time markers"? I hope to see clearer meaning of the 20 %.

Page 3728, last three lines of the section 5 I believe that the volcanic synchronization is a rigorous method; it seems to me that you should not easily introduce a possibility of errors in the volcanic synchronisation process.

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Interactive comment on Clim. Past Discuss., 7, 3719, 2011.