

## Revising the Dome Fuji ice core chronology

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Precise chronology is essential for paleoclimate proxies to examine the sequences, durations and phasing of the climate records, as well as for numerical simulations, both for their input and validation data to better understand the transient behaviors of climate and ice sheet. The chronology of the Dome Fuji ice core over the last 340 kyr was constructed by synchronizing variations in the  $O_2/N_2$  ratio of occluded air with local summer insolation (Kawamura et al., 2007) with stated uncertainty of less than ~2.5 kyr in general. The accuracy of the chronology is generally supported by the comparison with a radiometric (U-Th) dating of Chinese speleothem records (Cheng et al., 2009), but relatively large errors were recently found around the last interglacial period (Fujita et al., 2015). Here, we revise the Dome Fuji chronology using newly acquired  $O_2/N_2$  ratio (summer insolation proxies), new densification models and 1-D ice flow model (PaleoChrono), and discuss the timing of penultimate deglaciation from atmospheric records of  $CH_4$  concentrations and  $\delta^{18}O$  of  $O_2$  in the Dome Fuji ice core.

### References

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