

A new dating method for Dome Fuji ice core using data assimilation]

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Using Data Assimilation, we try to make a new dating method but based on the glaciological dynamics of Parrenin et al. (2004, 2007). Through filtering and smoothing method, we could gain a better tacking of the age of ice using high-resolution age makers for the deep part. It is still in the experimental stage but we will introduce the method and indicate the results using Kalman Filtering method. We gained similar results of estimated ages of ice and optimized parameters for dating model as well as Parrenin et al.(2007). Moreover, our calculation method has a substantial advantage for the calculating cost. In the future, we plan to make an improved dating model with other data assimilation method which could carry out a detailed ice chronology.

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