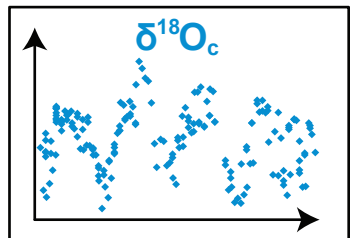


Combination methods based on Δ_{47}

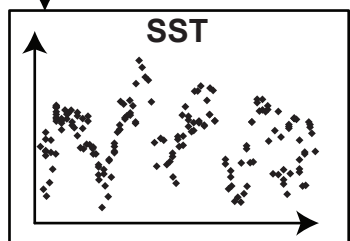
A

$\delta^{18}\text{O}_c$ -based

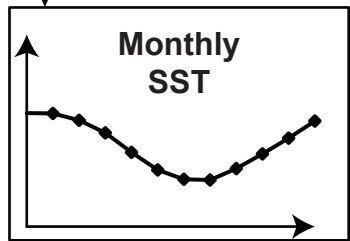


Monte Carlo error propagation

Kim and O'Neil (1997)
assume $\delta^{18}\text{O}_w = 0\text{‰ VSMOW}$

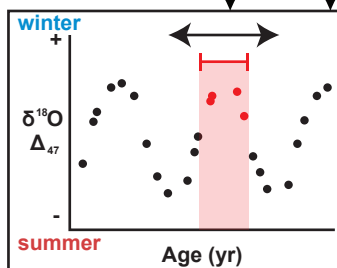
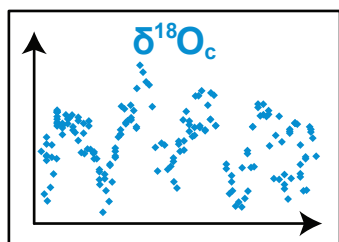
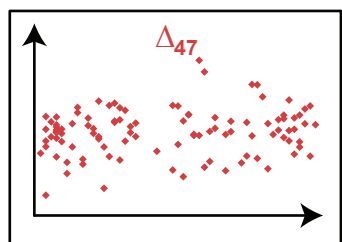


Stack by month



B

Δ_{47} -based moving average (smoothing)

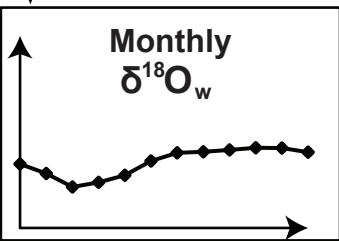
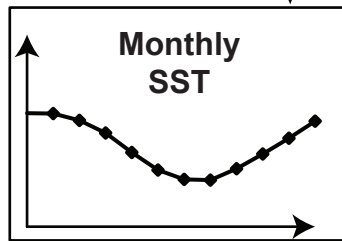


Sliding window size optimization

Monte Carlo error propagation

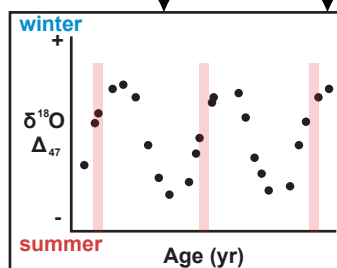
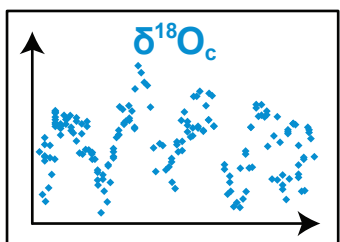
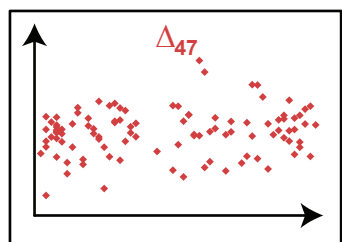
Stack by month
Kele et al. (2015)

Stack by month
Kim and O'Neil (1997)



C

Δ_{47} -based monthly time binning

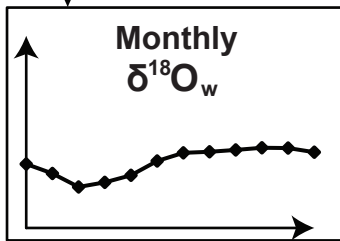
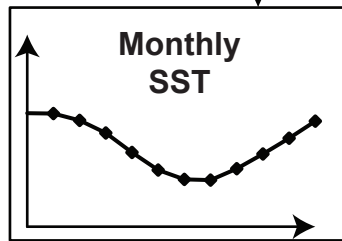


Group samples by month

Monte Carlo error propagation

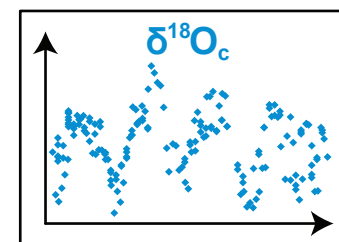
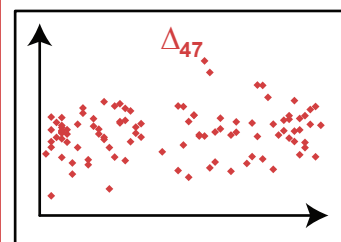
Stack by month
Kele et al. (2015)

Stack by month
Kim and O'Neil (1997)

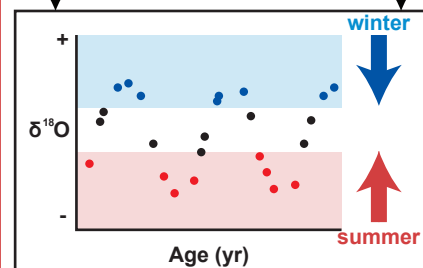


D

Δ_{47} -based sample size optimization



Sample size optimization



Monte Carlo error propagation

Stack by month
Kele et al. (2015)

Stack by month
Kim and O'Neil (1997)

