

## 0.1 Layer Counting and Annual Layer Thickness

## 0.2 Final Diffusion Length Estimates

### 0.2.1 AWI B-cores

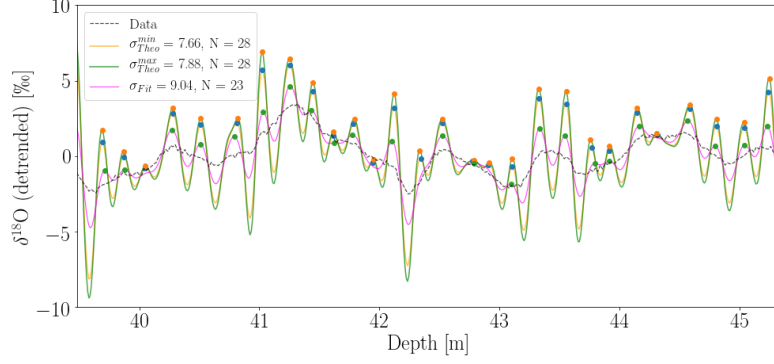


Figure 0.1

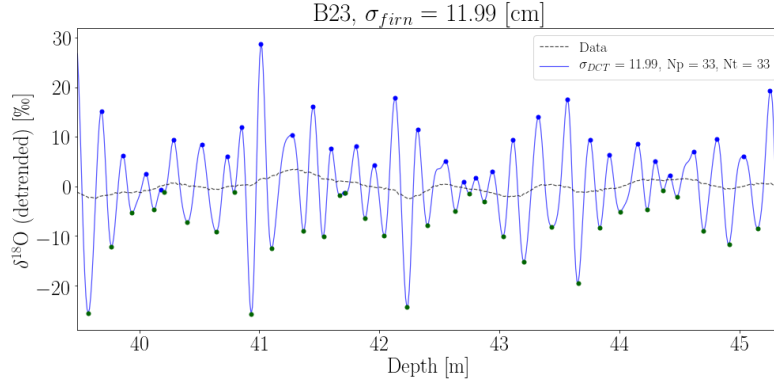


Figure 0.2

### 0.2.2 Crete and Surrounding Alphabet Cores

	Crete		Site A		Site B		Site D		Site E		Site G	
	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$
FFT												
DCT	6.08	6.02	5.97	5.85	5.71	5.83	4.55	4.41	6.37	6.24	8.81	8.72
NDCT	5.98	5.93	6.27	6.16	6.25	6.36	4.57	4.43	6.55	6.43	8.84	8.75

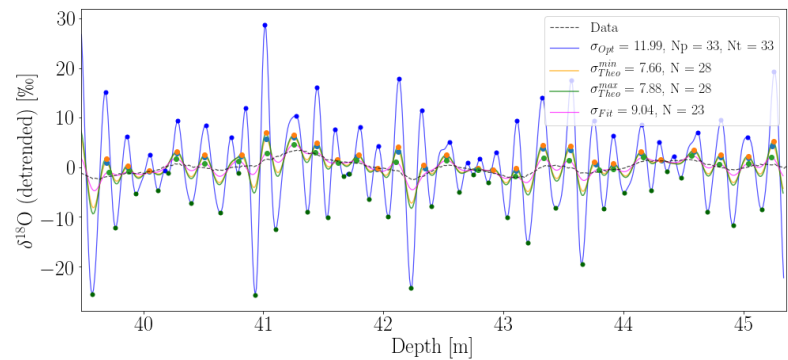


Figure 0.3

	Crete		Site A		Site B		Site D		Site E		Site G	
	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$
$\sigma_{\text{constant}}$												
$\sigma(z)$												

	Crete		Site A		Site B		Site D		Site E		Site G	
	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$	$\sigma_{\text{opt}}$	$\sigma_{\text{firn}}$
No constraints												
Constraints												

0.3 Final Temperature Estimates from Optimal Estimated  $\sigma$

RES-DATAEST:  
Write entire section.

RES-DATAESTSTST:  
Write entire section.

RES-DATAESTACCUM:  
Write entire section.

RES-DATAESTCFM:  
Write entire section.

0.3.1 Steady State Solution

0.3.1.1 Accumulation Distributions

0.3.2 Further Possibilities of the Iso-CFM

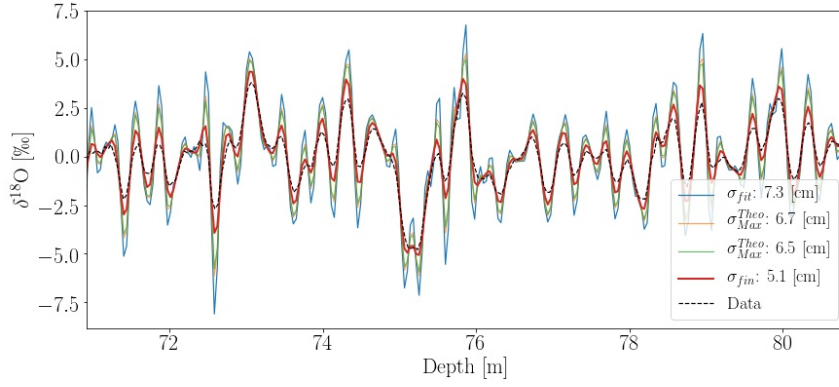


Figure 0.4: Estimated back diffused data series with different diffusion length estimates: diffusion length estimate from spectral fit ( $\sigma_{fit}$ ), maximum ( $\sigma_{Max}^{Theo}$ ) and minimum ( $\sigma_{Min}^{Theo}$ ) theoretically estimated diffusion lengths and final estimated diffusion length.