Depth series
& core specs

Constraints

analysis

Find optimal σ that
fulfills constraints

Temperature esti-
mate based on σ_{opt}

Measured depth series, d → START ← Core specs

START → Density profile

Density profile → Diffusion profile

Diffusion profile → σ_0

σ_0 → Construct Transfer Function filter, $\tilde{\mathcal{G}}$

Spectral analysis of $\tilde{d}$

Construct Wiener filter, $\tilde{F}$

Frequency Filters, $\tilde{F} \cdot \tilde{\mathcal{G}}^{-1}$

Deconvolution, $\mathcal{F}\left[\tilde{d} \cdot \tilde{F} \cdot \tilde{\mathcal{G}}^{-1}\right]$

STOP → Back diffused depth series, D

STOP → σ_{out}

Figure 0.1: Flowchart of initialization method for back diffusion of a depth series given a diffusion length estimate.