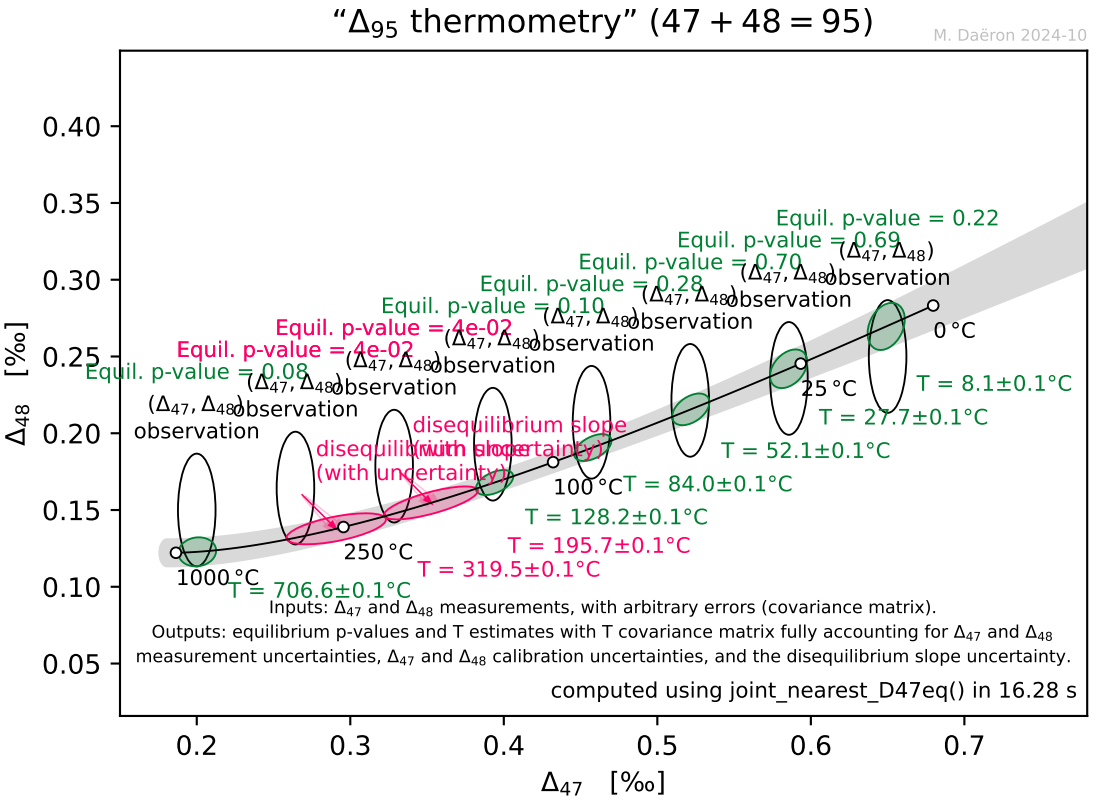
"Δ95 thermometry" (47 + 48 = 95)
M. Daëron 2024-10
Δ48 [‰]
Δ47 [‰]
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.2
0.3
0.4
0.5
0.6
0.7
Equil. p-value = 0.22
Equil. p-value = 0.69
Equil. p-value = 0.70
Equil. p-value = 0.28
Equil. p-value = 0.10
Equil. p-value = 4e-02
Equil. p-value = 4e-02
Equil. p-value = 0.08
(Δ47, Δ48) observation
disequilibrium slope
(with uncertainty)
0 °C
25 °C
100 °C
250 °C
1000 °C
T = 8.1±0.1°C
T = 27.7±0.1°C
T = 52.1±0.1°C
T = 84.0±0.1°C
T = 128.2±0.1°C
T = 195.7±0.1°C
T = 319.5±0.1°C
T = 706.6±0.1°C
Inputs: Δ47 and Δ48 measurements, with arbitrary errors (covariance matrix).
Outputs: equilibrium p-values and T estimates with T covariance matrix fully accounting for Δ47 and Δ48 measurement uncertainties, Δ47 and Δ48 calibration uncertainties, and the disequilibrium slope uncertainty.
computed using joint_nearest_D47eq() in 16.28 s