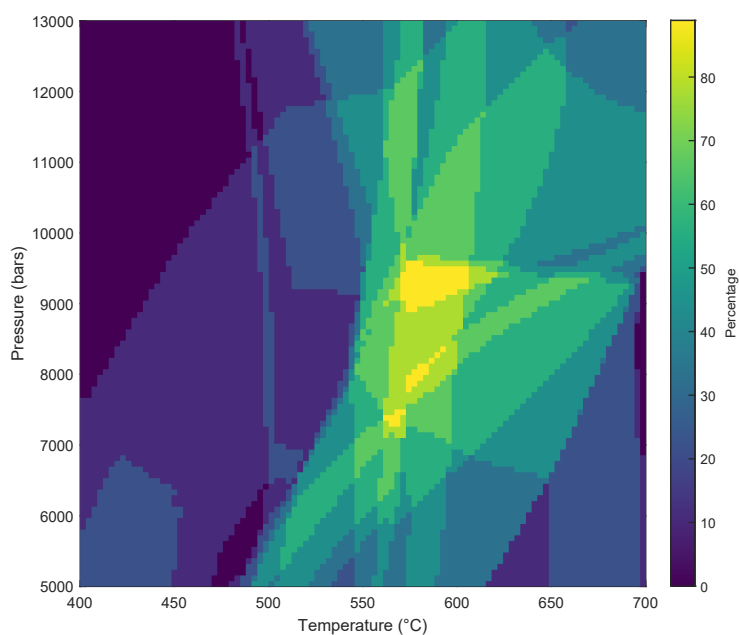**INPUT:** raw = 0, sd = 2

L0_fig1: isopleth fields % overlap heatmap
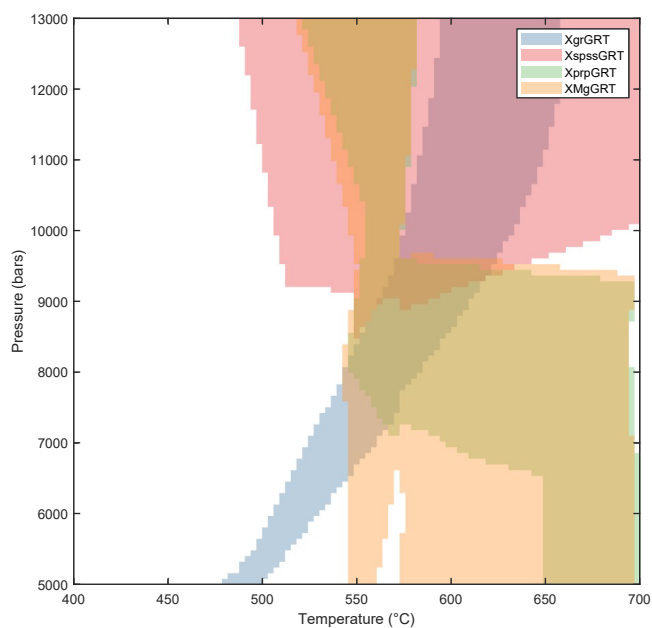
Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
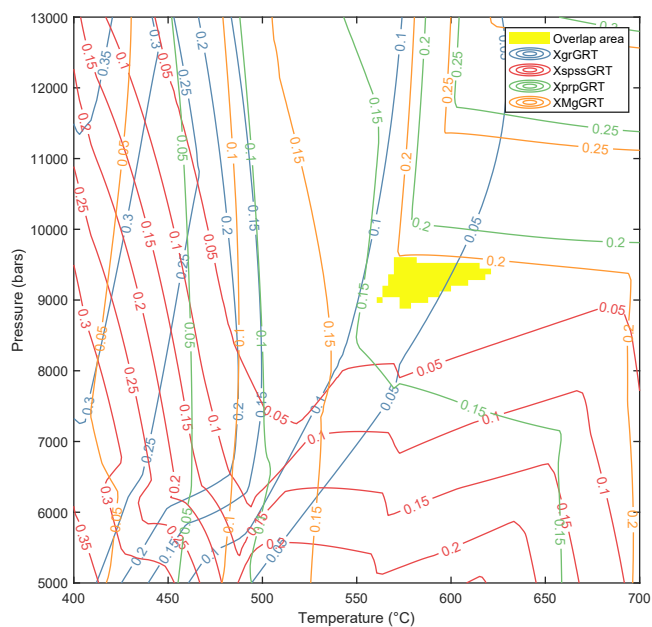X_{Ab} in Na-Fsp

Max = 88.9% (8/9 fields)

L0_fig2: isopleth fields
INPUT:
sd = 2

Parameters displayed:
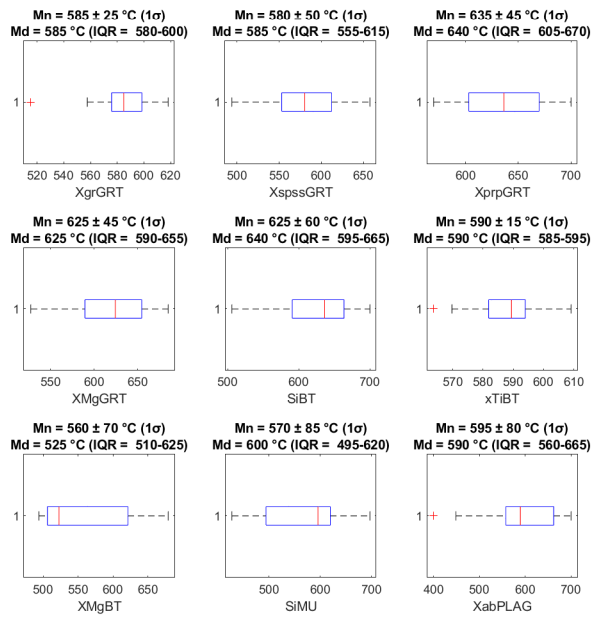X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt

L0_fig3: isopleth contours
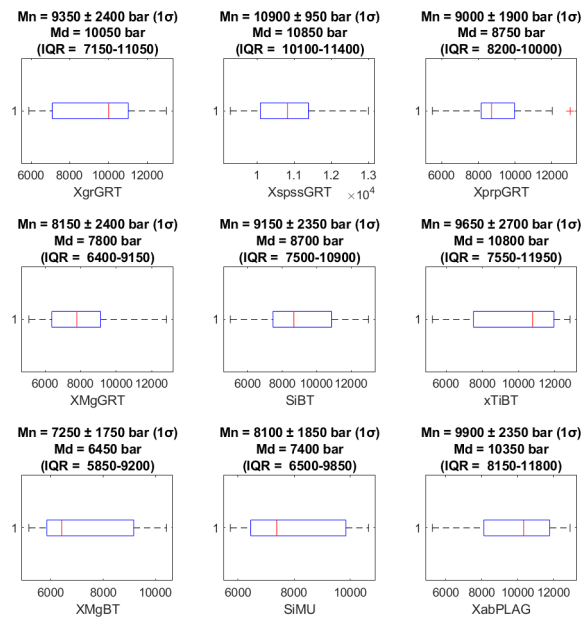INPUT:
sd = 2

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt

INPUT: raw = 0, n = 500

Mn = 585 ± 25 °C (1σ)
Md = 585 °C (IQR = 580-600)

520 540 560 580 600 620
XgrGRT

Mn = 580 ± 50 °C (1σ)
Md = 585 °C (IQR = 555-615)

500 550 600 650
XspssGRT

Mn = 635 ± 45 °C (1σ)
Md = 640 °C (IQR = 605-670)

600 650 700
XprpGRT

Mn = 625 ± 45 °C (1σ)
Md = 625 °C (IQR = 590-655)

550 600 650
XMgGRT

Mn = 625 ± 60 °C (1σ)
Md = 640 °C (IQR = 595-665)

500 600 700
SiBT

Mn = 590 ± 15 °C (1σ)
Md = 590 °C (IQR = 585-595)

570 580 590 600 610
xTiBT

Mn = 560 ± 70 °C (1σ)
Md = 525 °C (IQR = 510-625)

500 550 600 650
XMgBT

Mn = 570 ± 85 °C (1σ)
Md = 600 °C (IQR = 495-620)

500 600 700
SiMU

Mn = 595 ± 80 °C (1σ)
Md = 590 °C (IQR = 560-665)

400 500 600 700
XabPLAG

L1_fig1: boxplots of parameter temperature uncertainty
data: mean and 1 s.d. OR median and IQ range

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

Mn = 9350 ± 2400 bar (1σ)
Md = 10050 bar
(IQR = 7150-11050)

6000 8000 10000 12000
XgrGRT

Mn = 10900 ± 950 bar (1σ)
Md = 10850 bar
(IQR = 10100-11400)

1 1.1 1.2 1.3 ×10⁴
XspssGRT

Mn = 9000 ± 1900 bar (1σ)
Md = 8750 bar
(IQR = 8200-10000)

6000 8000 10000 12000
XprpGRT

Mn = 8150 ± 2400 bar (1σ)
Md = 7800 bar
(IQR = 6400-9150)

6000 8000 10000 12000
XMgGRT

Mn = 9150 ± 2350 bar (1σ)
Md = 8700 bar
(IQR = 7500-10900)

6000 8000 10000 12000
SiBT

Mn = 9650 ± 2700 bar (1σ)
Md = 10800 bar
(IQR = 7550-11950)

6000 8000 10000 12000
xTiBT

Mn = 7250 ± 1750 bar (1σ)
Md = 6450 bar
(IQR = 5850-9200)

6000 8000 10000
XMgBT

Mn = 8100 ± 1850 bar (1σ)
Md = 7400 bar
(IQR = 6500-9850)

6000 8000 10000
SiMU

Mn = 9900 ± 2350 bar (1σ)
Md = 10350 bar
(IQR = 8150-11800)

6000 8000 10000 12000
XabPLAG

L1_fig2: boxplots of parameter pressure uncertainty
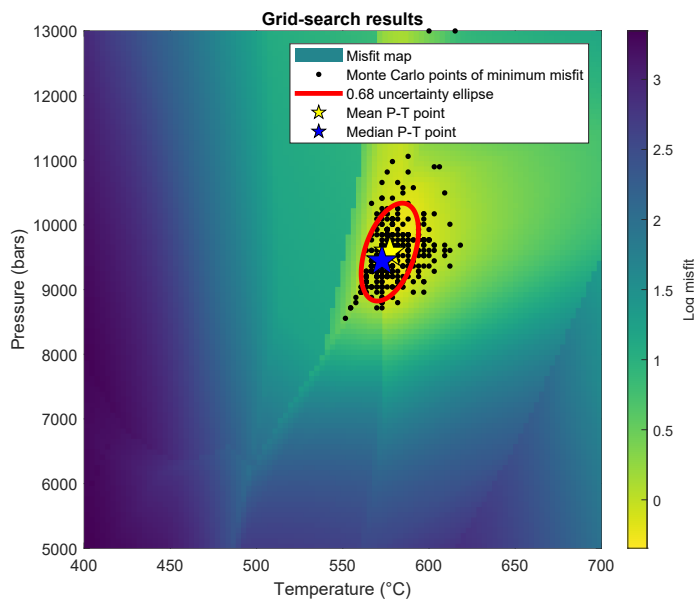data: mean and 1 s.d. OR median and IQ range

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

INPUT: raw = 0, bootstrap = 1, iterations = 500, confidence_level = 0.68, boxplots = 0, plot_type = 0, T_bins = 10, P_bins = 10
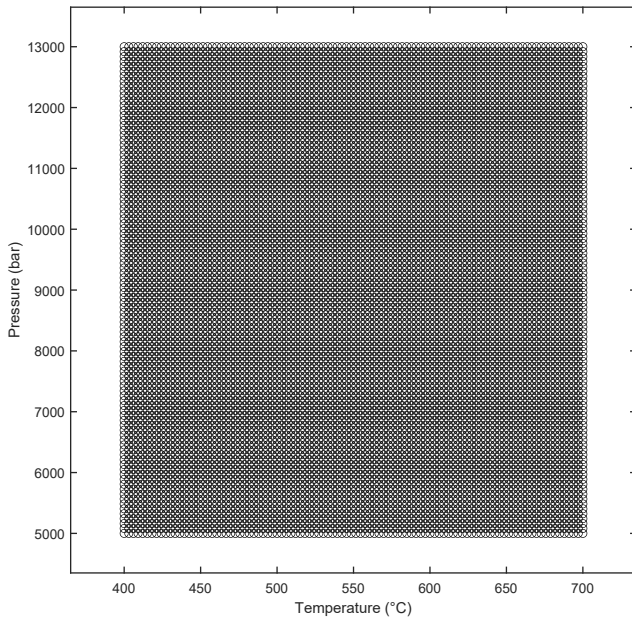
L2_fig1: model grid

100x100 grid (ensure sufficient overlap)

Grid-search results

Mn = 580 ± 15 °C (1σ)
Md = 575 °C (IQR = 570-585)

Mn = 9580 ± 505 bar (1σ)
Md = 9445 bar (IQR = 9285-9770)

L2_fig2: grid search best-fit solutions

Data: mean ± 1 s.d. or median and IQ range

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

N.b. best-fit results available for separate processing in
output_variables/PT_solutions.csv
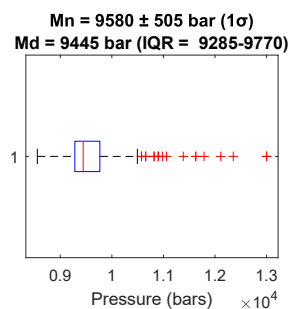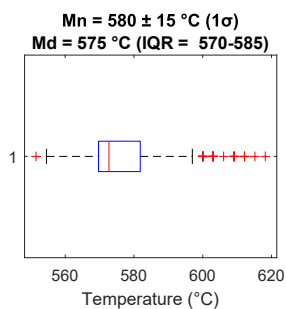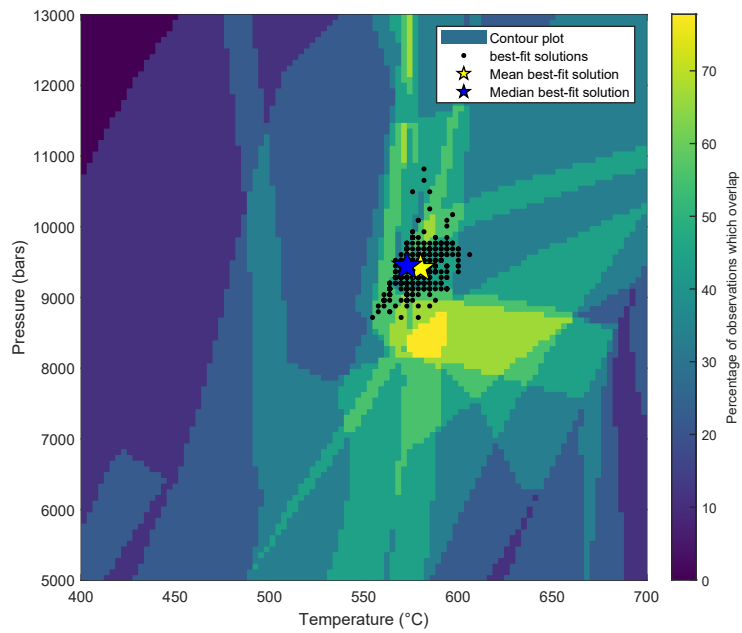
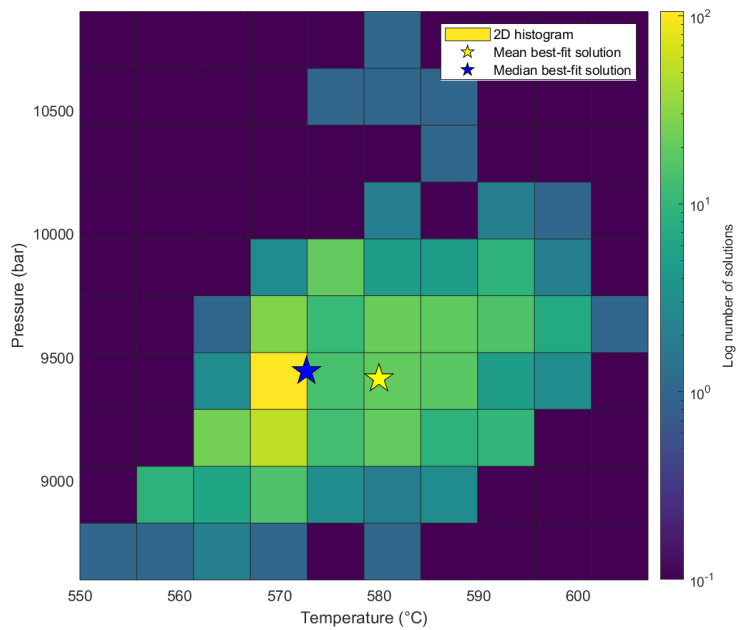## L2_fig3: best-fit solutions and % overlap heatmap

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

Max = 88.9% (8/9 fields)

L2_fig4: 2D histogram of best-fit solutions
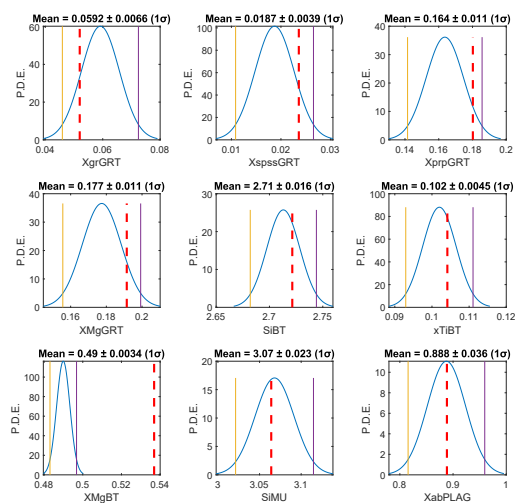
Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

L3_residuals

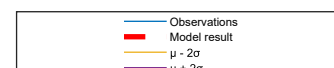**INPUT:** raw = 0, T_best = 575, P_best = 9445

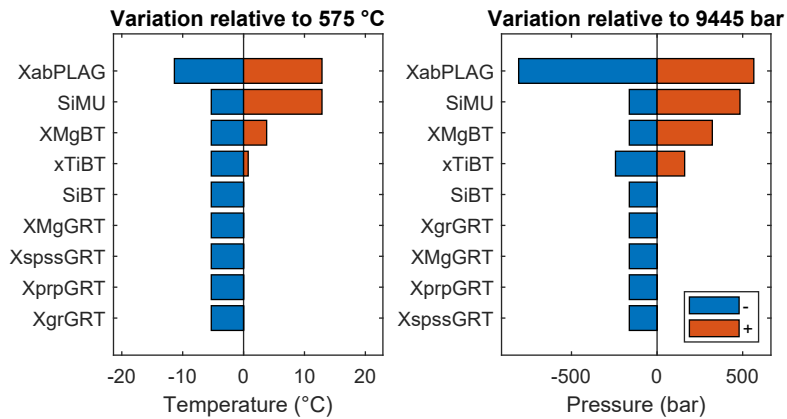## L3_fig1: residuals at given P-T point

Parameters displayed:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

INPUT: raw = 0, bootstrap = 1, iterations = 500, T_best = 575, P_best = 9445

Variation relative to 575 °C

Variation relative to 9445 bar

L4_fig1: parameter sensitivity

Tornado plot showing sensitivity of best-fit solutions to uncertainty in input parameters

Parameters displayed:
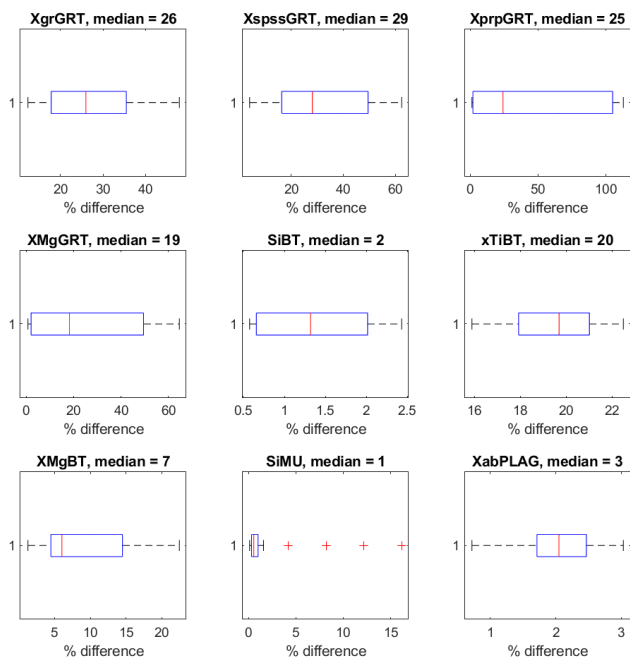X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

EXTRA_synthetic_variation

INPUT: threshold = 50, pressure_of_interest = 9000

X_fig1: predicted uncertainty

Parameters included:
X_{Grs}, X_{Spss}, X_{Prp}, X_{Mg} in Grt
Si, X_{Ti}, X_{Mg} in Bt
Si in Mu
X_{Ab} in Na-Fsp

median % difference