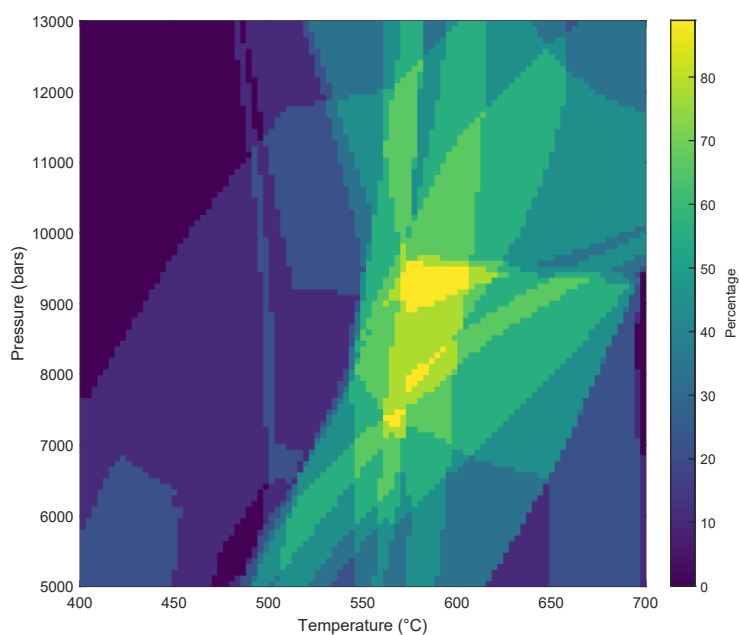


INPUT: raw = 0, sd = 2



L0.fig1: isopleth fields % overlap heatmap

Parameters displayed:

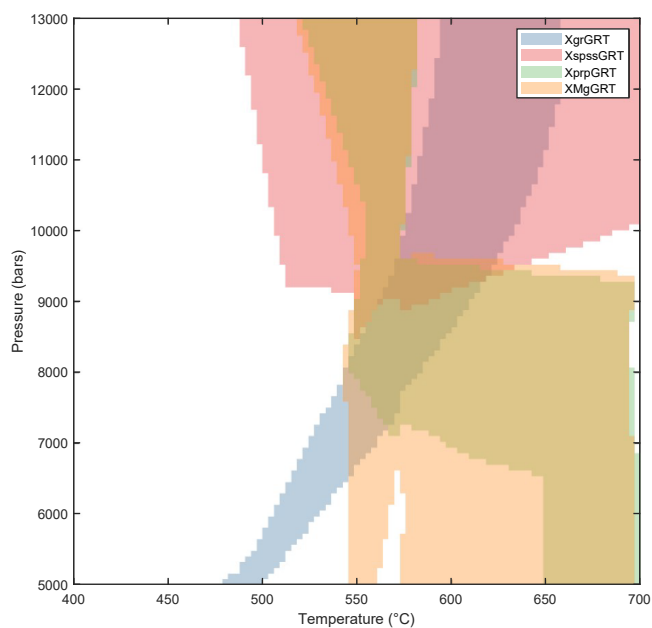
$X_{GrSr}$ ,  $X_{Spssr}$ ,  $X_{Prpr}$ ,  $X_{Mg}$  in Grt

Si,  $X_{Ti}$ ,  $X_{Mg}$  in Bt

Si in Mu

$X_{Ab}$  in Na-Fsp

Max = 88.9% (8/9 fields)



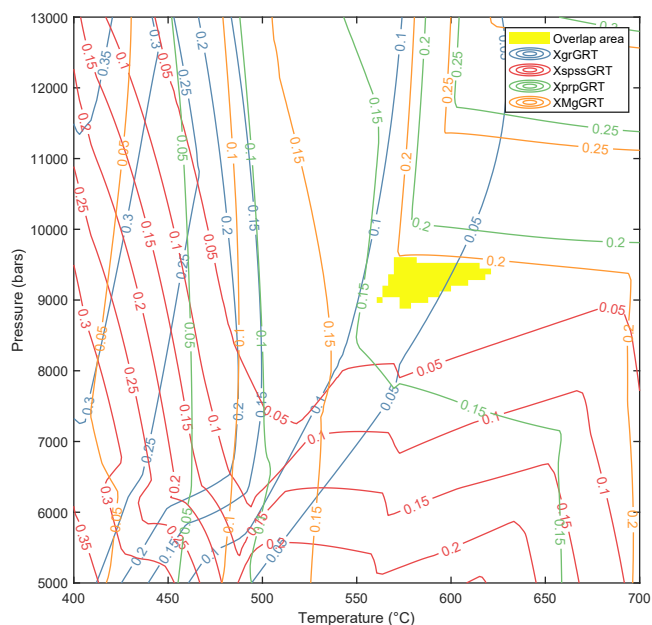
L0.fig2: isopleth fields

INPUT:

sd = 2

Parameters displayed:

$X_{GrSr}$ ,  $X_{Spssr}$ ,  $X_{Prpr}$ ,  $X_{Mg}$  in Grt



L0.fig3: isopleth contours

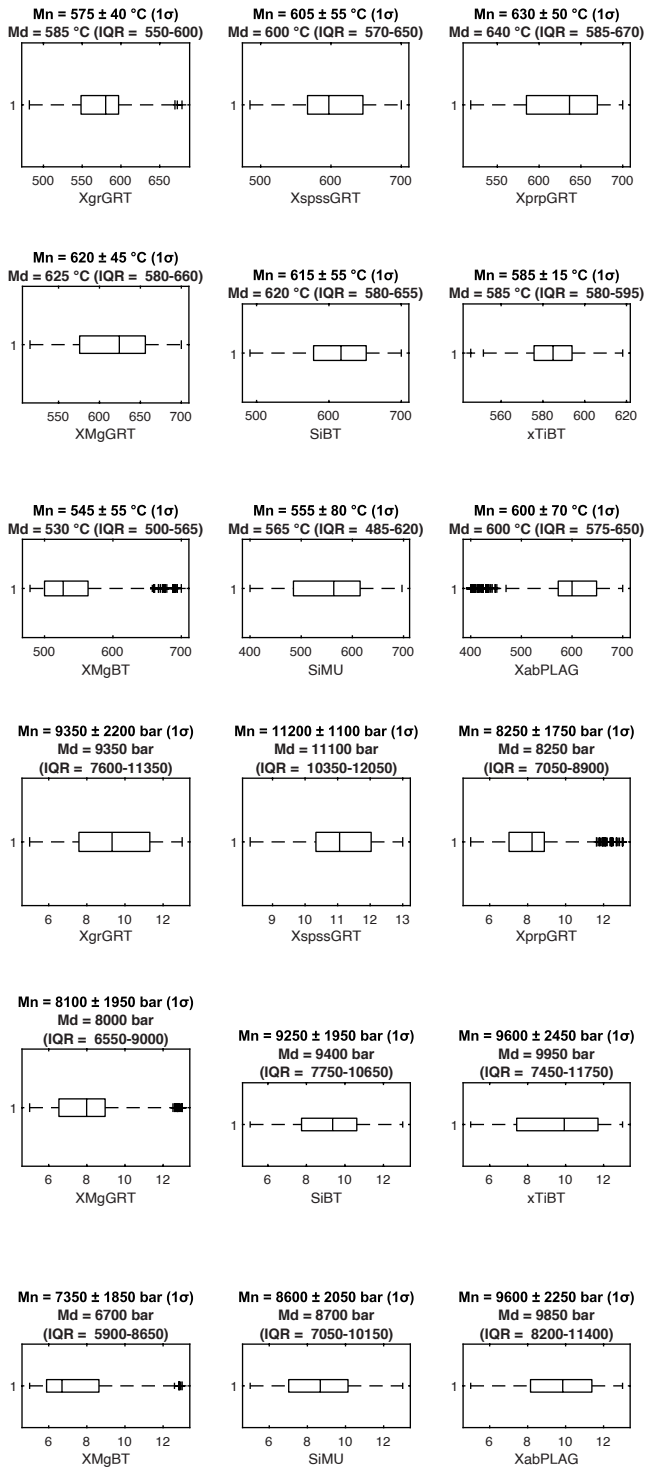
INPUT:

sd = 2

Parameters displayed:

$X_{GrSr}$ ,  $X_{Spssr}$ ,  $X_{Prpr}$ ,  $X_{Mg}$  in Grt

INPUT: raw = 0, n = 500



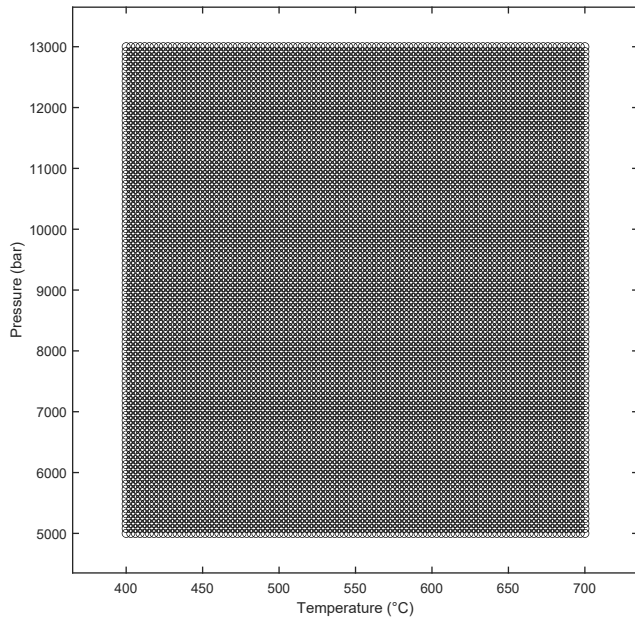
**L1 fig1: boxplots of parameter temperature uncertainty**  
data: mean and 1 s.d. OR median and IQ range

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

**L1 fig2: boxplots of parameter pressure uncertainty**  
data: mean and 1 s.d. OR median and IQ range

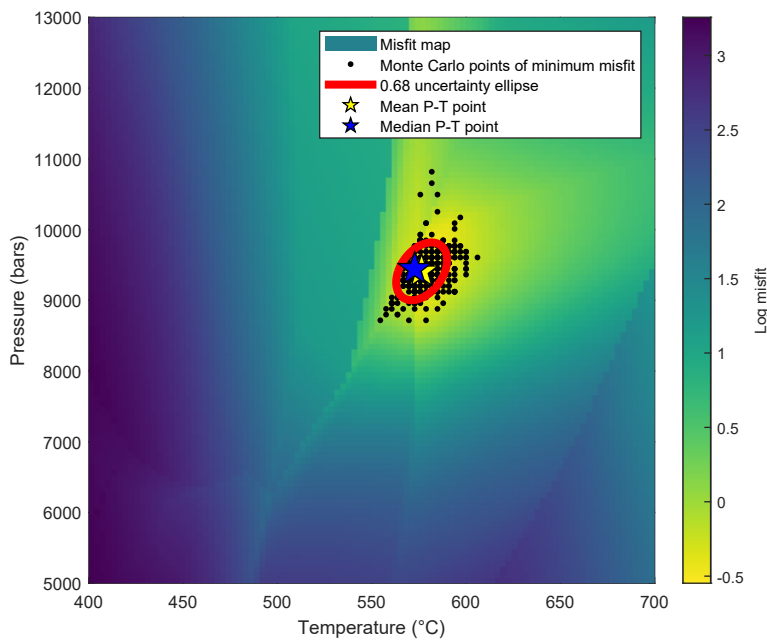
Parameters displayed:  
 $X_{GrS}$ ,  $X_{SpSs}$ ,  $X_{Prp}$ ,  $X_{Mg}$  in Grt  
 $Si$ ,  $X_{Ti}$ ,  $X_{Mg}$  in Bt  
 $Si$  in Mu  
 $X_{Ab}$  in Na-Fsp

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)

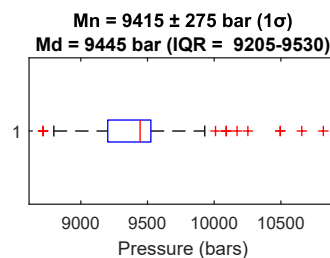
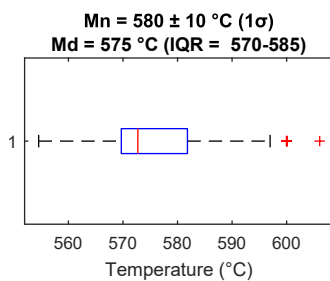


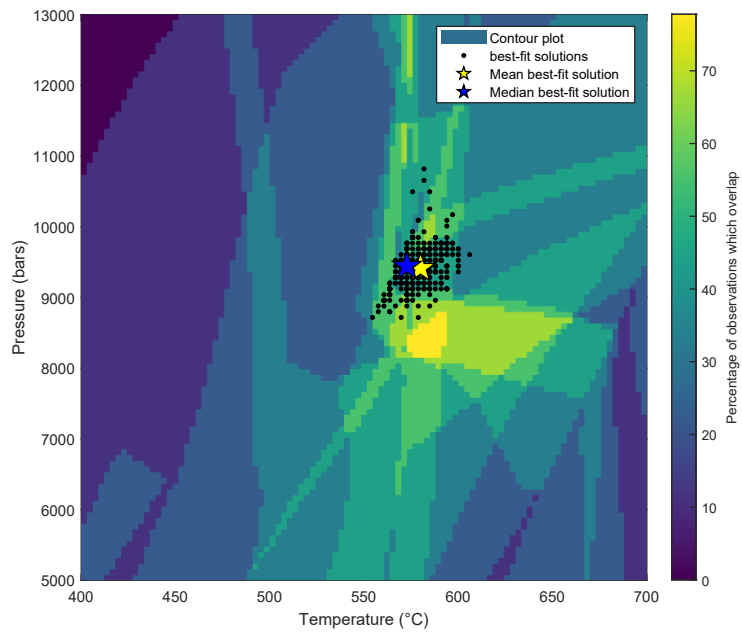
L2\_fig2: grid search best-fit solutions

Data: mean  $\pm$  1 s.d. or median and IQ range

Parameters displayed:  
 $X_{\text{Gr}_s}$ ,  $X_{\text{Sp}_s}$ ,  $X_{\text{Pr}_p}$ ,  $X_{\text{Mg}}$  in Grt  
 $\text{Si}$ ,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt  
 $\text{Si}$  in Mu  
 $X_{\text{Ab}}$  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

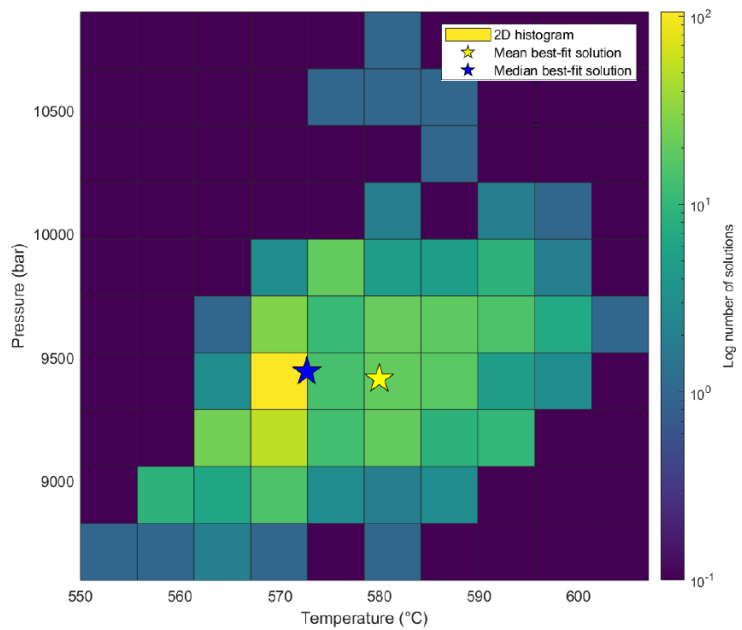
Parameters displayed:

 $X_{\text{Grs}}$ ,  $X_{\text{Spss}}$ ,  $X_{\text{Prp}}$ ,  $X_{\text{Mg}}$  in GrtSi,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt

Si in Mu

 $X_{\text{Ab}}$  in Na-Fsp

Max = 88.9% (8/9 fields)



L2\_fig4: 2D histogram of best-fit solutions

Parameters displayed:

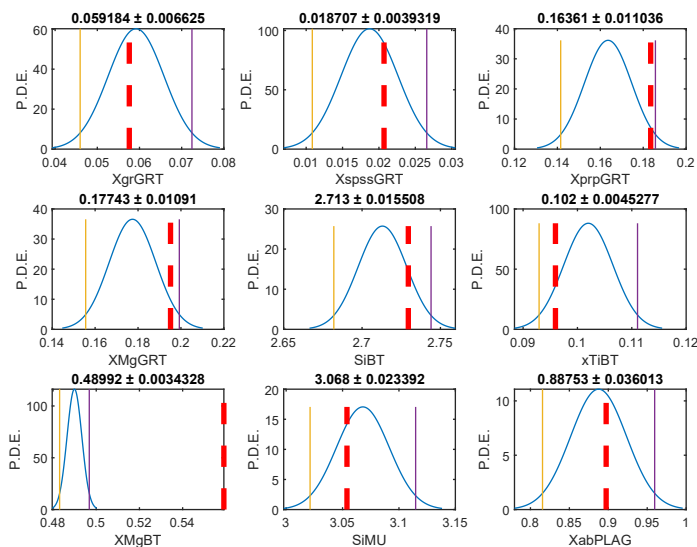
 $X_{\text{Grs}}$ ,  $X_{\text{Spss}}$ ,  $X_{\text{Prp}}$ ,  $X_{\text{Mg}}$  in GrtSi,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt

Si in Mu

 $X_{\text{Ab}}$  in Na-Fsp

## L3\_residuals

INPUT: raw = 0, T\_best = 575, P\_best = 9445

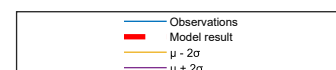


L3\_fig1: residuals at given P-T point

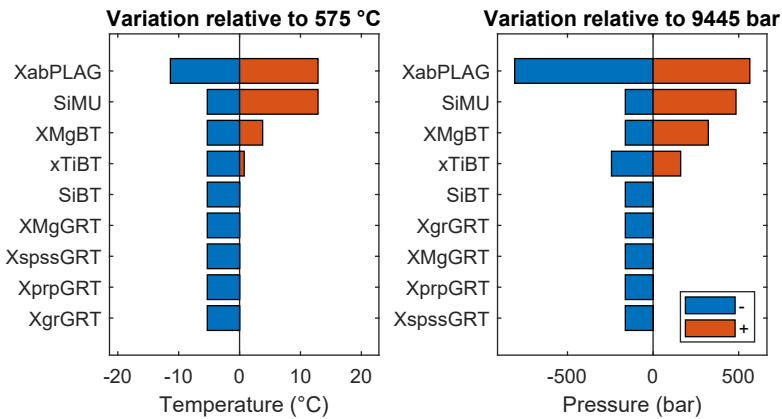
Parameters displayed:

 $X_{\text{Grs}}$ ,  $X_{\text{Spss}}$ ,  $X_{\text{Prp}}$ ,  $X_{\text{Mg}}$  in GrtSi,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt

Si in Mu

 $X_{\text{Ab}}$  in Na-Fsp

INPUT: raw = 0, bootstrap = 1, iterations = 500,  $T_{\text{best}} = 575$ ,  $P_{\text{best}} = 9445$



**L4\_fig1: parameter sensitivity**

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

Parameters displayed:

$X_{\text{Grs}}$ ,  $X_{\text{Spss}}$ ,  $X_{\text{Prp}}$ ,  $X_{\text{Mg}}$  in Grt

$\text{Si}$ ,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt

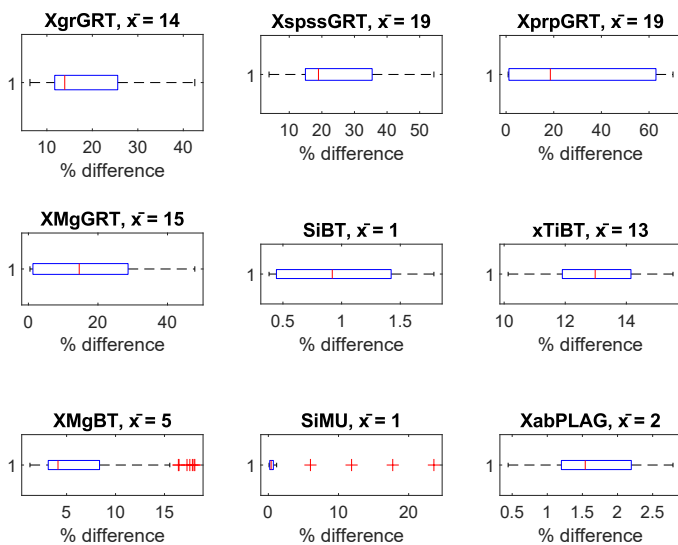
$\text{Si}$  in Mu

$X_{\text{Ab}}$  in Na-Fsp

$\bar{x}^-$  = median % difference

## EXTRA\_synthetic\_variation

INPUT: threshold = 50, pressure\_of\_interest = 9000



**X\_fig1: predicted uncertainty**

Parameters included:

$X_{\text{Grs}}$ ,  $X_{\text{Spss}}$ ,  $X_{\text{Prp}}$ ,  $X_{\text{Mg}}$  in Grt

$\text{Si}$ ,  $X_{\text{Ti}}$ ,  $X_{\text{Mg}}$  in Bt

$\text{Si}$  in Mu

$X_{\text{Ab}}$  in Na-Fsp

$\bar{x}^-$  = median % difference