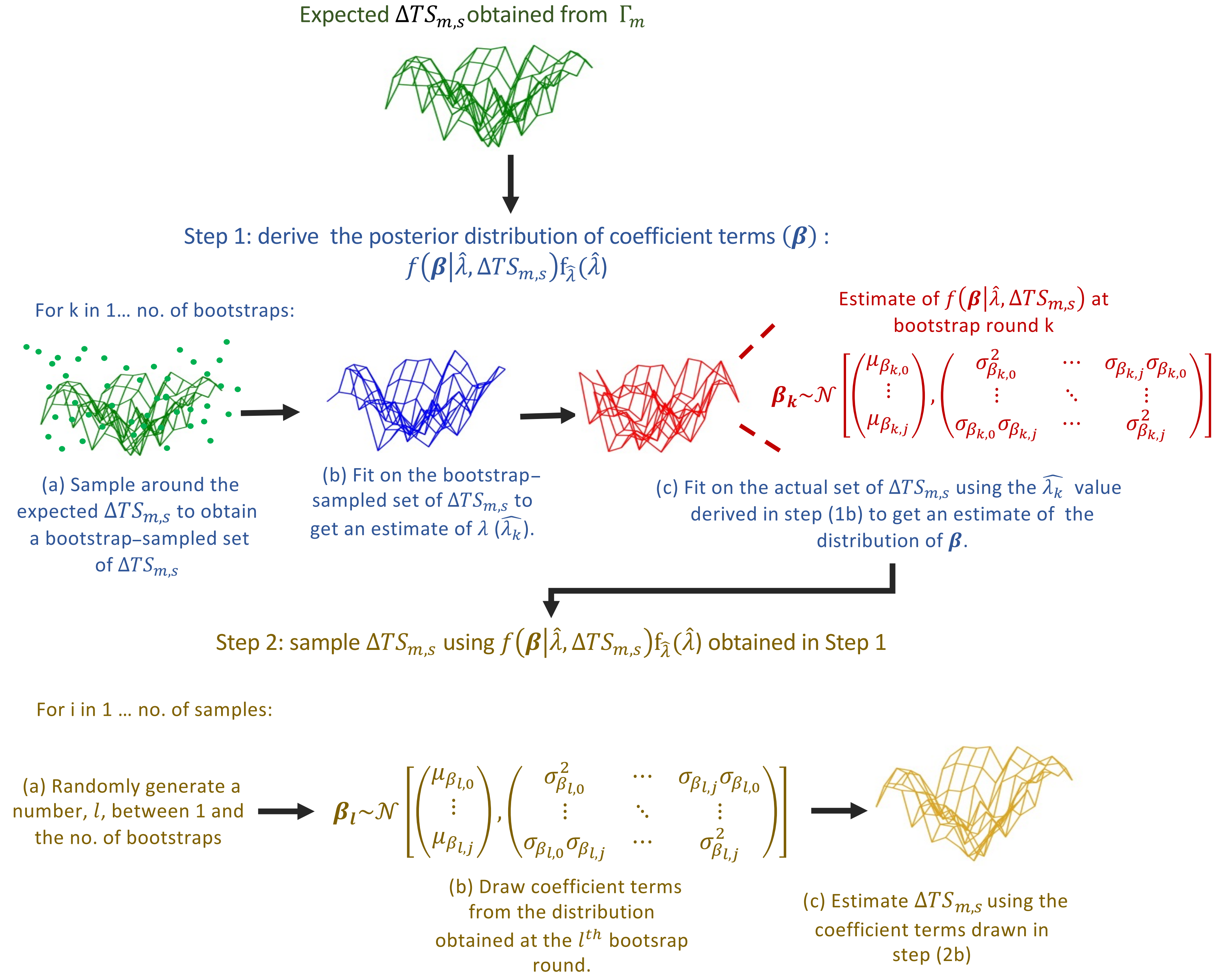
Expected $\Delta TS_{m,s}$ obtained from Γ_m
Step 1: derive the posterior distribution of coefficient terms ($\boldsymbol{\beta}$) :
$f(\boldsymbol{\beta}|\hat{\lambda}, \Delta TS_{m,s})f_{\hat{\lambda}}(\hat{\lambda})$
For k in 1… no. of bootstraps:
Estimate of $f(\boldsymbol{\beta}|\hat{\lambda}, \Delta TS_{m,s})$ at bootstrap round k
$\boldsymbol{\beta_k} \sim \mathcal{N}\left[\begin{pmatrix}\mu_{\beta_{k,0}} \\ \vdots \\ \mu_{\beta_{k,j}}\end{pmatrix}, \begin{pmatrix}\sigma^2_{\beta_{k,0}} & \cdots & \sigma_{\beta_{k,j}}\sigma_{\beta_{k,0}} \\ \vdots & \ddots & \vdots \\ \sigma_{\beta_{k,0}}\sigma_{\beta_{k,j}} & \cdots & \sigma^2_{\beta_{k,j}}\end{pmatrix}\right]$
(a) Sample around the expected $\Delta TS_{m,s}$ to obtain a bootstrap–sampled set of $\Delta TS_{m,s}$
(b) Fit on the bootstrap–sampled set of $\Delta TS_{m,s}$ to get an estimate of λ ($\widehat{\lambda_k}$).
(c) Fit on the actual set of $\Delta TS_{m,s}$ using the $\widehat{\lambda_k}$ value derived in step (1b) to get an estimate of the distribution of $\boldsymbol{\beta}$.
Step 2: sample $\Delta TS_{m,s}$ using $f(\boldsymbol{\beta}|\hat{\lambda}, \Delta TS_{m,s})f_{\hat{\lambda}}(\hat{\lambda})$ obtained in Step 1
For i in 1 … no. of samples:
(a) Randomly generate a number, l, between 1 and the no. of bootstraps
$\boldsymbol{\beta_l} \sim \mathcal{N}\left[\begin{pmatrix}\mu_{\beta_{l,0}} \\ \vdots \\ \mu_{\beta_{l,j}}\end{pmatrix}, \begin{pmatrix}\sigma^2_{\beta_{l,0}} & \cdots & \sigma_{\beta_{l,j}}\sigma_{\beta_{l,0}} \\ \vdots & \ddots & \vdots \\ \sigma_{\beta_{l,0}}\sigma_{\beta_{l,j}} & \cdots & \sigma^2_{\beta_{l,j}}\end{pmatrix}\right]$
(b) Draw coefficient terms from the distribution obtained at the l^{th} bootstrap round.
(c) Estimate $\Delta TS_{m,s}$ using the coefficient terms drawn in step (2b)