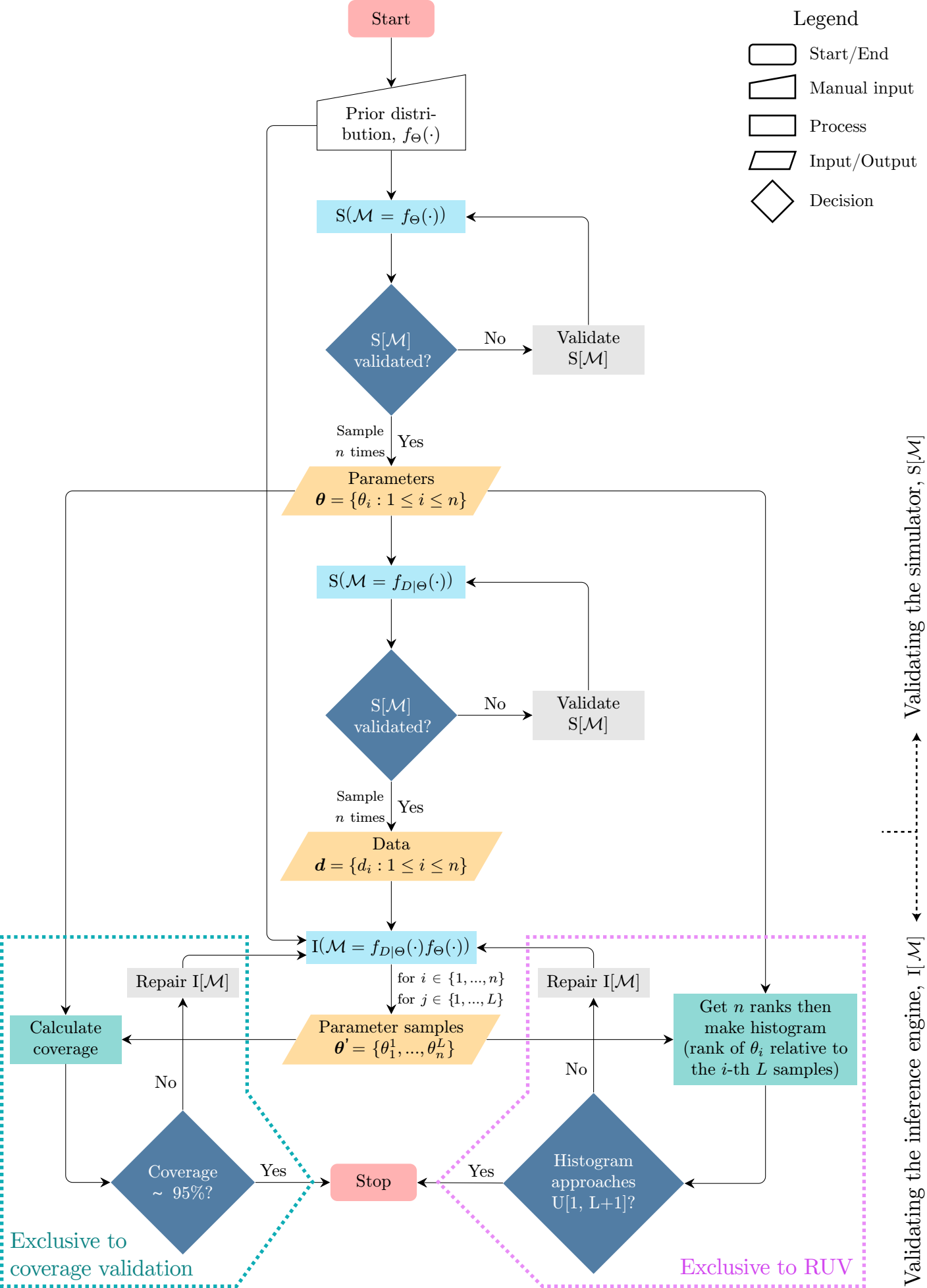
Legend
Start/End
Manual input
Process
Input/Output
Decision
Start
Prior distribution, $f_\Theta(\cdot)$
$\mathrm{S}(\mathcal{M} = f_\Theta(\cdot))$
$\mathrm{S}[\mathcal{M}]$ validated?
No
Validate $\mathrm{S}[\mathcal{M}]$
Sample n times
Yes
Parameters $\boldsymbol{\theta} = \{\theta_i : 1 \leq i \leq n\}$
$\mathrm{S}(\mathcal{M} = f_{D|\Theta}(\cdot))$
$\mathrm{S}[\mathcal{M}]$ validated?
No
Validate $\mathrm{S}[\mathcal{M}]$
Sample n times
Yes
Data $\boldsymbol{d} = \{d_i : 1 \leq i \leq n\}$
$\mathrm{I}(\mathcal{M} = f_{D|\Theta}(\cdot) f_\Theta(\cdot))$
for $i \in \{1, ..., n\}$
for $j \in \{1, ..., L\}$
Repair $\mathrm{I}[\mathcal{M}]$
Repair $\mathrm{I}[\mathcal{M}]$
Calculate coverage
Parameter samples $\boldsymbol{\theta}' = \{\theta_1^1, ..., \theta_n^L\}$
Get n ranks then make histogram (rank of θ_i relative to the i-th L samples)
No
No
Coverage ~ 95%?
Yes
Stop
Yes
Histogram approaches U[1, L+1]?
Exclusive to coverage validation
Exclusive to RUV
Validating the simulator, $\mathrm{S}[\mathcal{M}]$
Validating the inference engine, $\mathrm{I}[\mathcal{M}]$