Initial projected residual	$oldsymbol{\lambda}_0 = oldsymbol{\lambda}_0 + P oldsymbol{\lambda}_{00}$
Initial projected residual	$\mathbf{r}_0 = \mathbf{P}^T (\mathbf{d} - \mathbf{F} \boldsymbol{\lambda}_0)$
???	$\mathbf{Z}_0 = \mathbf{S}\left[\cdots,\mathbf{B}^{(s)}(\mathbf{d}^{(s)} - \mathbf{F}^{(s)}\mathbf{B}^{(s)T}oldsymbol{\lambda}_0),\cdots ight]$
Project Residual to natural coarsegrid	$\mathbf{W}_0 = \mathbf{PZ}_0$
Initialize	$\lambda_0 = 0, i = 0$
While not converged	$\sqrt{\mathbf{r}^T\mathbf{Z}1} > \epsilon$
Project search direction to coarse g	$ extit{rid} \qquad extbf{Q}_i = extsf{FW}_i$
What does that step do????	$oldsymbol{\Delta}_i = {oldsymbol{Q}_i}^T oldsymbol{W}_i$
What does that step do????	$oldsymbol{\gamma}_i = oldsymbol{r_i}^T oldsymbol{Z}_i$
???	$oldsymbol{\lambda}_{i+1} = oldsymbol{\lambda}_i + oldsymbol{W}_i oldsymbol{\Delta}_i^{\ +} oldsymbol{\gamma}_i$
Update residual	$\mathbf{r}_{i+1} = \mathbf{r}_i - \mathbf{P}^T \mathbf{Q}_i \mathbf{\Delta}_i^+ \boldsymbol{\gamma}_i$
Precondition Residual	$\mathbf{Z}_{i+1} = \mathbf{SP}^T \mathbf{Q}_i$
Project to ???	$\mathbf{W}_{i+1} = PZ_{i+1}$
Loop over previous iterations	for: $0 \le j \le i$
Compute ???	$oldsymbol{\phi}_{i,j} = \mathbf{Q}_j^T \mathbf{W}_{i+1}$
Orhorgonalize new direction	$\mathbf{W}_{i+1} \leftarrow \mathbf{W}_{i+1} - \mathbf{W}_{j} \mathbf{\Delta}_{j}^{\ +} \mathbf{\phi}_{i,j}$
Increase iteration counter	$i \leftarrow i + 1$
Compute total interface forces	$oldsymbol{\lambda} = oldsymbol{\lambda}_i$