```
Outer Iteration (maximum iterations defined by it max bga)
        Inner Iteration (maximum iterations defined by it max phi)
        If linesearch == 1
          Linesearch (maximum iterations defined by it max linesearch)
          end linesearch
        end Inner Iteration
    If struct par opt == 1
           Structural Parameter Optimization
            (maximum iterations defined by it_max_structural)
          Lend Structural Parameter Optimization
     Else, only perform 1 Outer Iteration
   end Outer Iteration
If posterior cov flag == 1
```

Calculate posterior covariance