

Figure 1: Convergence for both MIREs and GMRES

## Problem 0: Homework checklist

- ✓I didn't talk with any one about this homework.
- ✓Source-code are included at the end of this document.

## Problem 1:

1. The convergence plots are shown in Figure ??.
2. If we use a *ichol* incomplete Cholesky preconditioner it will take 319 iterations to converge. MINRES doesn't benefit from an incomplete Cholesky

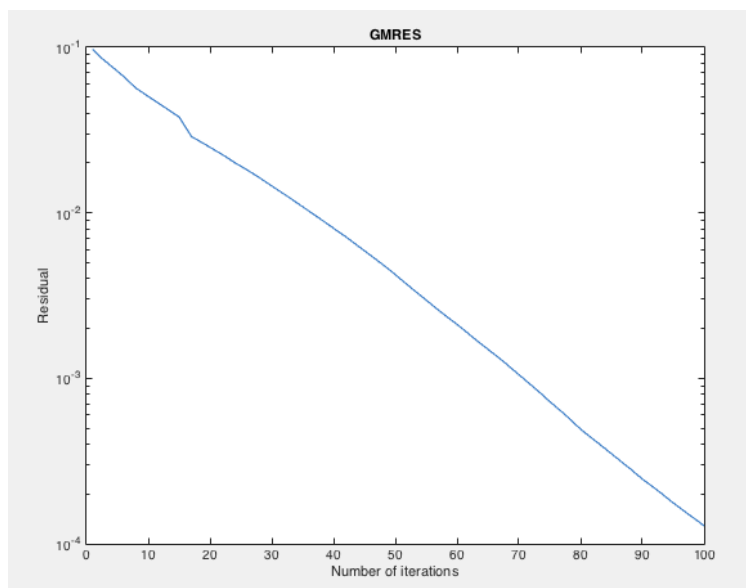


Figure 2: GMRES with *ichol*

preconditioner. Figure ?? shows the convergence of GMRES with incomplete Cholesky preconditioner.