

iterMeth

n =

17

xkPlus =

1.0000e+00

2.0000e+00

3.0000e+00

ans =

20×4 table

| N | cJ | cGS | cSOR |
|------------|------------|------------|------------|
| 0.0000e+00 | Inf | Inf | Inf |
| 1.0000e+00 | 3.0000e-01 | 2.7528e-01 | 2.7030e-01 |
| 2.0000e+00 | 2.5000e-01 | 2.5000e-01 | 2.4618e-01 |
| 3.0000e+00 | 5.0000e-01 | 1.2500e-01 | 3.4919e-02 |
| 4.0000e+00 | 2.5000e-01 | 1.2500e-01 | 6.3685e-02 |
| 5.0000e+00 | 5.0000e-01 | 1.2500e-01 | 3.4146e-02 |
| 6.0000e+00 | 2.5000e-01 | 1.2500e-01 | 4.8894e-02 |
| 7.0000e+00 | 5.0000e-01 | 1.2500e-01 | 3.3888e-02 |
| 8.0000e+00 | 2.5000e-01 | 1.2500e-01 | 0.0000e+00 |
| 9.0000e+00 | 5.0000e-01 | 1.2500e-01 | 0.0000e+00 |
| 1.0000e+01 | 2.5000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.1000e+01 | 5.0000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.2000e+01 | 2.5000e-01 | 0.0000e+00 | 0.0000e+00 |

| | | | |
|------------|------------|------------|------------|
| 1.3000e+01 | 5.0000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.4000e+01 | 2.5000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.5000e+01 | 5.0000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.6000e+01 | 2.5000e-01 | 0.0000e+00 | 0.0000e+00 |
| 1.7000e+01 | 0.0000e+00 | 0.0000e+00 | 0.0000e+00 |
| 0.0000e+00 | 0.0000e+00 | 0.0000e+00 | 0.0000e+00 |
| 0.0000e+00 | 0.0000e+00 | 0.0000e+00 | 0.0000e+00 |

the asymptotic error constant is smaller for Gauss-Seidel versus Jacobian iteration methods, and the same for SOR over Gauss-Seidel