Appendix

The coefficient matrix A and the right–hand side matrix B used in Section 6.3 of "A BreakdownFree Block Conjugate Gradient Method" by Hao Ji and Yaohang Li [1] are presented below.

$$A = \begin{bmatrix}
121.164272268116 & 17.8757971682236 & 8.91160049194292 & 14.8013917105125 & 12.7809854465276 \\
17.8757971682236 & 123.317477848499 & 15.3784313056350 & 13.9826052710372 & 8.99969320736193 \\
8.91160049194292 & 15.3784313056350 & 114.944841846832 & 14.0212707850901 & 18.3077854261355 \\
14.8013917105125 & 13.9826052710372 & 14.0212707850901 & 112.181615127048 & 6.98849991034816 \\
12.7809854465276 & 8.99969320736193 & 18.3077854261355 & 6.98849991034816 & 112.325588245555 \\
14.7026896764278 & 12.0449732854894 & 14.5027264215831 & 15.6000866949538 & 9.62150309966732 \\
16.6581592592829 & 14.8004340755219 & 12.0968055881465 & 15.6521797575797 & 9.91145010305920 \\
17.7634024982886 & 6.47584364565590 & 16.0640864509010 & 17.5486159107531 & 7.70562137370861 \\
13.6288388058580 & 6.74411759716316 & 14.2012968909398 & 11.8376249537951 & 19.8270052266075 \\
12.6121271222844 & 11.8855805421895 & 6.14231789000198 & 13.0217718614950 & 17.6325001345481
\end{bmatrix}$$

$$\begin{bmatrix}
14.7026896764278 & 16.6581592592829 & 17.7634024982886 & 13.6288388058580 & 12.6121271222844 \\
12.0449732854894 & 14.8004340755219 & 6.47584364565590 & 6.74411759716316 & 11.8855805421895 \\
14.5027264215831 & 12.0968055881465 & 16.0640864509010 & 14.2012968909398 & 6.14231789000198 \\
15.6000866949538 & 15.6521797575797 & 17.5486159107531 & 11.8376249537951 & 13.0217718614950 \\
9.62150309966732 & 9.91145010305920 & 7.70562137370861 & 19.8270052266075 & 17.6325001345481 \\
102.912724285154 & 13.9592217854341 & 6.65030637918623 & 15.6299996128245 & 16.3450359607153 \\
13.9592217854341 & 106.578021459235 & 7.87956983883075 & 10.6885329046362 & 7.63921835027445 \\
6.65030637918623 & 7.87956983883075 & 113.736168684120 & 8.30021275368670 & 18.8043098692214 \\
15.6299996128245 & 10.6885329046362 & 8.30021275368670 & 108.648495445339 & 20.4504103006764 \\
16.3450359607153 & 7.63921835027445 & 18.8043098692214 & 20.4504103006764 & 117.313312551535
\end{bmatrix}$$

$$B = \begin{bmatrix}
0.719862394959852 & 7.19862399356066 \\
0.298498062508485 & 2.98498066864206 \\
0.719943073352362 & 7.19943077821203 \\
0.470645548592634 & 4.70645553655237 \\
0.213065120059020 & 2.13065123100835 \\
0.635136176538378 & 6.35136184705153 \\
0.338215520218286 & 3.38215526612211 \\
0.274120126028595 & 2.74120129843795 \\
0.243954498892080 & 2.43954507177449 \\
0.630536116636262 & 6.30536119819008
\end{bmatrix}$$

References

1. Ji, H., Li, Y.: A breakdown-free block Conjugate Gradient method. BIT Numer. Math. (2016). Under review