

The image displays a 15x15 grid of black dots on a white background. The dots are arranged in a pattern that suggests a banded structure, with higher density along the main diagonal and some off-diagonal elements, particularly in the lower-left and upper-right quadrants. This visual representation likely corresponds to the sparse matrix A mentioned in the text, which is used to illustrate the performance of the proposed algorithm compared to the standard LU decomposition.

A 3x3 grid of dots. The dots are arranged in three rows and three columns. The bottom-left dot is missing, leaving 8 dots in total.