

Heatmap visualization of the 14x14 adjacency matrix for the 2D square lattice graph. The color scale ranges from 0 (dark purple) to 250,000 (green). The matrix is symmetric, indicating an undirected graph. The highest values (green) are concentrated along the main diagonal, representing self-loops. The off-diagonal elements show the connectivity between nodes, with higher values indicating stronger connections. The pattern of connections is consistent with the 2D square lattice structure, where each node is connected to its four immediate neighbors (up, down, left, right).