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Figure 1 displays a grid of 100 small plots, arranged in 10 rows and 10 columns. Each plot shows the distribution of the number of non-zero elements in the product of two sparse matrices, labeled with parameters a and b . The x-axis represents the 'Number of non-zero elements' (ranging from 0 to 100), and the y-axis represents the 'Frequency' (ranging from 0 to 100). The plots show various distributions, with some having peaks at 0, some at 100, and others in between. The distributions are labeled with a and b values, representing the number of non-zero elements in the two matrices being multiplied. The labels are: Row 1: (a,b) = (1,1), (1,2), (1,3), (1,4), (1,5), (1,6), (1,7), (1,8), (1,9), (1,10); Row 2: (2,1), (2,2), (2,3), (2,4), (2,5), (2,6), (2,7), (2,8), (2,9), (2,10); Row 3: (3,1), (3,2), (3,3), (3,4), (3,5), (3,6), (3,7), (3,8), (3,9), (3,10); Row 4: (4,1), (4,2), (4,3), (4,4), (4,5), (4,6), (4,7), (4,8), (4,9), (4,10); Row 5: (5,1), (5,2), (5,3), (5,4), (5,5), (5,6), (5,7), (5,8), (5,9), (5,10); Row 6: (6,1), (6,2), (6,3), (6,4), (6,5), (6,6), (6,7), (6,8), (6,9), (6,10); Row 7: (7,1), (7,2), (7,3), (7,4), (7,5), (7,6), (7,7), (7,8), (7,9), (7,10); Row 8: (8,1), (8,2), (8,3), (8,4), (8,5), (8,6), (8,7), (8,8), (8,9), (8,10); Row 9: (9,1), (9,2), (9,3), (9,4), (9,5), (9,6), (9,7), (9,8), (9,9), (9,10); Row 10: (10,1), (10,2), (10,3), (10,4), (10,5), (10,6), (10,7), (10,8), (10,9), (10,10). The distributions are generally symmetric and centered around 50, with some plots showing a peak at 0 or 100. The frequency of non-zero elements in the product is generally higher for larger a and b values.

