

1x1

Diagram illustrating the structure of a sparse matrix A (size 8×8). The non-zero elements are highlighted in gray, showing a banded structure with some off-diagonal elements.

A_{00}		A_{02}					
A_{10}	A_{11}						
		A_{22}		A_{24}			
		A_{32}	A_{33}				
				A_{44}		A_{46}	
				A_{54}	A_{55}		
						A_{66}	
						A_{66}	A_{77}

(a)

1x2

A_{00}	0.0	A_{02}	0.0				
A_{10}	A_{11}						
		A_{22}	0.0	A_{24}	0.0		
		A_{32}	A_{33}				
				A_{44}	0.0	A_{46}	0.0
				A_{54}	A_{55}		
						A_{66}	0.0
						A_{66}	A_{77}

(b)

2x1

A_{00}	0.0	A_{02}							
A_{10}	A_{11}	0.0							
		A_{22}	0.0	A_{24}					
		A_{32}	A_{33}	0.0					
				A_{44}	0.0	A_{46}			
				A_{54}	A_{55}	0.0			
							A_{66}	0.0	
							A_{66}	A_{77}	

(c)

2x2

A_{00}	0.0	A_{02}	0.0						
A_{10}	A_{11}	0.0	0.0						
		A_{22}	0.0	A_{24}	0.0				
		A_{32}	A_{33}	0.0	0.0				
				A_{44}	0.0	A_{46}	0.0		
				A_{54}	A_{55}	0.0	0.0		
						A_{66}	0.0		
						A_{66}	A_{77}		

(d)