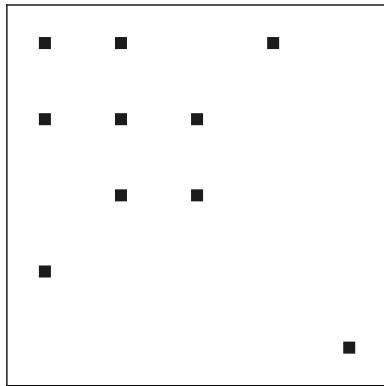


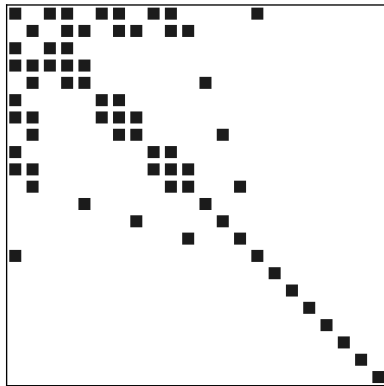
MNA sparsity patterns across representative SMPS

Buck
(1 switches)



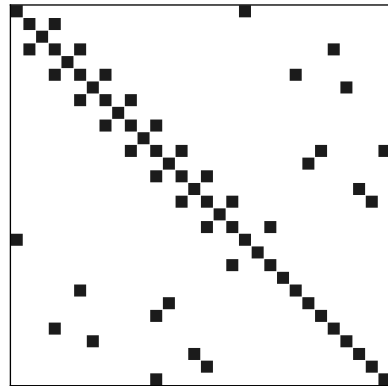
$n = 5$ nnz = 10 density = 40.0%

NPC 3-phase
(12 switches)



$n = 22$ nnz = 66 density = 13.6%

MMC arm, 9 SMs
(18 switches)



$n = 30$ nnz = 66 density = 7.3%