

# Diagonal Transformation and Encoding

The image illustrates a diagonal transformation that is part of Pinsky's combinatorial theorem. The choice of the next step being among  $\{(0, 1), (1, 0), (-1, 0), (0, -1)\}$  is equivalent to a diagonal version of the encoding being in the set  $\{(+1, +1), (+1, -1), (-1, -1), (-1, +1)\}$ . This equivalence is demonstrated by the pattern of crosses shown.

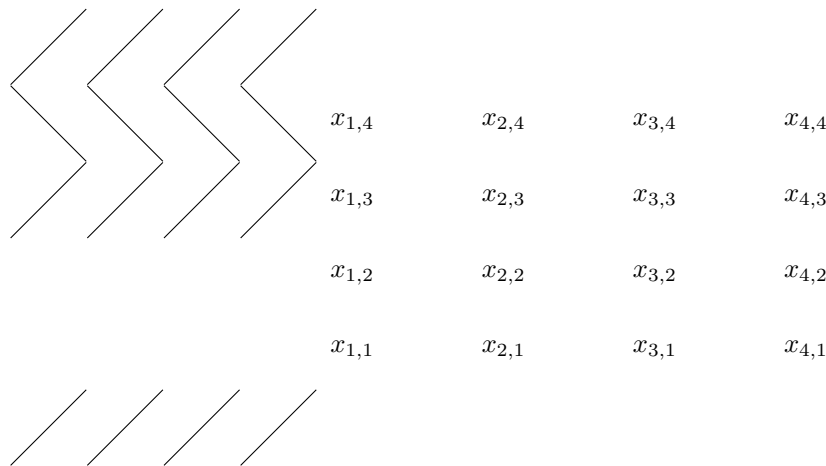


Figure 1: A grid with diagonals representing the transitions and encoding in the context of Pinsky's combinatorial theorem.