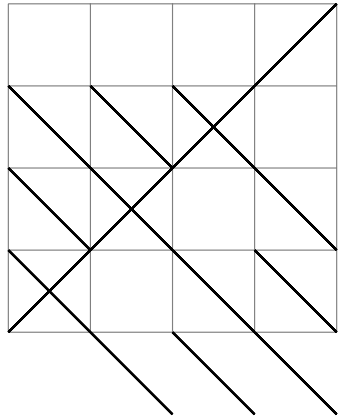

Figure 1: The diagonal transformation that is part of Pinsky's combinatorial theorem. The choice of the next step being among $\{(0,1),(1,0),(-1,0),(0,-1)\}$ is equivalent to a diagonal version of the encoding being in the set $\{(+1,+1),(+1,-1),(-1,-1),(-1,+1)\}$ as shown.