
LUC VINET, CRM/IVADO

Spin systems on q -hypercubes and the connection to dual polar graphs

The totally symmetric multi-qubit Dicke states arise in many quantum computing contexts. They also provide the dimensional reduction of uniform spin systems on the hypercube to the Krawtchouk chain with perfect state transfer. A q -version of these connections and their relation to the dual polar graphs will be presented.