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The Smith group of the hypercube graph

The n -cube graph Q_n is the graph on the vertex set of n -tuples of 0s and 1s, with two vertices joined by an edge if and only if the n -tuples differ in exactly one component. I will talk about the recent complete determination of the Smith group of Q_n , or, equivalently, the elementary divisors of an adjacency matrix A of Q_n . It would be of interest to find a diagonal form for the Laplacian matrix $nI - A$ of Q_n . The talk is based on joint work with David Chandler and Peter Sin.