Minimum supports of eigenfunctions of graphs
Alexandr Valyuzhenich
Laboratory of Algebraic Combinatorics, Sobolev Institute of Mathematics, Novosibirsk, Russia
graphkiper@mail.ru

In this work we consider the problem of finding the minimum cardinality of the support of eigenfunctions of graphs. This problem was studied for the Hamming graphs \(H(n, q)\) for \(q = 2\) in [5, 3] and for \(q \geq 3\) in [8, 9, 10], for the Johnson graphs in [11], for the Doob graphs in [1], for the cubical distance-regular graphs in [6], for the bilinear forms graphs in [7], for the Paley graphs in [2] and for the Grassmann graphs in [4]. In this talk we give a survey of recent results on the problem and we present new results for the Hamming graph \(H(n, 3)\) and for the Star graph.

References


