

Quadratic embedding constants of graphs and related topics

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The quadratic embedding (QE) constant of a finite connected graph G , denoted by $\text{QEC}(G)$, is by definition the maximum of the quadratic function associated to the distance matrix on a certain sphere of codimension two. The QE constant was introduced around 2018 by the speaker and has been expected to be an interesting invariant of finite connected graphs. In this lecture I will survey basic results on the QE constant, discuss some related topics and propose some questions.