

A graph with the smallest eigenvalue at least
—3
— an irreducibility of Hoffman graphs —

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Abstract

Hoffman graph may be regarded as a graph obtained by adding cliques to a simple graph, and is formally defined to be a graph which consists of the vertices of the simple graph and the fat vertices expressing the cliques. We may consider that the simple graphs are Hoffman graphs without fat vertices. In [3], R. Woo and A. Neumaier considered the “sum” of Hoffman graphs, but they did not formulate the concept of the “sum” since they treated it secondarily in order to consider another concept. By a process to study [4] and [5], we discovered the concepts of the “sum” and the “irreducible decomposition” of Hoffman graphs.

In this talk, we deal with an irreducibility of Hoffman graphs, and, in particular, Hoffman graphs with the smallest eigenvalue at least -3 .

References

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