On Some Different Aspects of Clique Graphs

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The clique graph of a graph is the intersection graph of the maximal cliques of G. In this talk, we survey some different aspects of clique graphs. The following topics are covered:

1) Clique graphs of classes of graphs: Given a certain class A of graphs, determine the collection of graphs which are clique graphs of the graphs of A.

2) Clique–inverse of classes of graphs: Given a certain class A of (clique) graphs, determine the collection of graphs whose clique graphs belong to A.

3) Characterization of clique graphs: The problems of characterizing and recognizing clique graphs are discussed.

4) Iterated Clique Graphs Some different aspects of iterated clique graphs are surveyed. Among them, convergence, divergence, for both vertices and diameters.

Finally, some open problems are presented.