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Simultaneous Graph Representations

Two graphs sharing some vertices and edges are *simultaneously planar* if they have planar embeddings with common vertices/edges represented by the same points/curves. We give a linear time recognition algorithm when the common graph is 2-connected (with B. Haeupler and K.R. Jampani).

Simultaneous interval graphs have common vertices represented by the same intervals. We give a polynomial time recognition algorithm (with K.R. Jampani). These are related to probe graphs and graph sandwich problems.