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Finding clique clusters with the highest betweenness centrality

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Highlights

- The most betweenness-central clique problem is introduced and studied.
- The decision version of this problem is proven to be NP-complete.
- An analytical bounding scheme for the centrality of a maximal clique is proposed.
- A combinatorial branch-and-bound algorithm for solving this problem is developed.
- Results of numerical experiments with real-life and random graphs are provided.

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