Redundancy of Centrality Measures in Financial Market Infrastructures

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The concept of centrality is widely used to monitor systems with a network structure because it allows identifying their most influential participants. This monitoring task can be difficult if the number of system participants is considerably large or if the wide variety of centrality measures currently available produce non-coincident (or mixed) signals. This document uses robust principal component analysis to evaluate a set of centrality measures calculated for the financial institutions that participate in Colombia's four financial market infrastructures. The results obtained are used to construct general indices of centrality, using the most robust measures of centrality as inputs and leaving aside those considered redundant.