informative statistics in multigraphs

☑ number of loops and non-loops: tendency for within and between vertex category edges
➡ homophily/heterophily

☑ tendency for isolated vertices ➡ network diffusion

☑ simple occupancy of edges ➡ simple/complex network

☑ single ties within vertex category ➡ isolation

☑ tendency for strengthening ties and if overlapping for multiple edge types ➡ multiplexity

statistics for analyzing local and global social structural features

*

* *"if a graph contains loops and/or any pairs of nodes is adjacent via more than one line a graph is complex"* [Wasserman and Faust, 1994]

how do we quantify these statistics?

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multigraph representation of network data