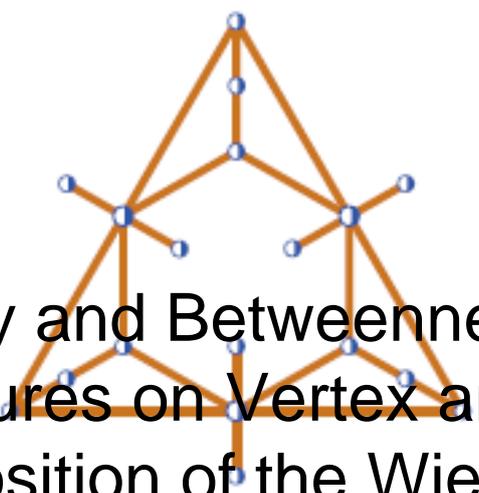# Bled'11 - 7th Slovenian International Conference on Graph Theory

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Centrality and Betweenness: AGX Conjectures on Vertex and Edge Decomposition of the Wiener Index

Content :

In this talk, we present an edge and vertex decomposition of the Wiener index that is related to the concept of betweenness centrality used in social networks studies. Some classical methods to compute W could easily be derived from this formulation and novel invariants may de defined by this mean. Another vertex decomposition of W is the transmission. If transmission and centrality are both vertex decompositions of W it seems that they are represent opposite concepts, however the nature of this relation is not always so clear. Some properties and conjectures obtained with the AutoGraphiX software on betweenness, centrality and their relation to transmission are presented.

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