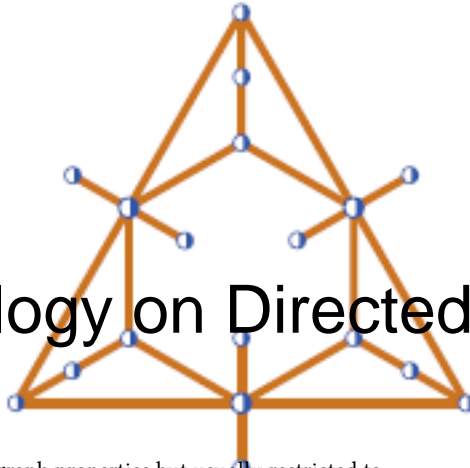


Bled'11 - 7th Slovenian International Conference on Graph Theory

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Homology on Directed Graph



Content :

Homology is often used to analyze graph properties but usually restricted to undirected graphs. We want to give an idea of a homology which respects the direction of the arcs of directed graphs.

This homology is applied to directed graphs themselves and not only to their underlying undirected graphs.

Moreover, we will give examples for applying this homology to directed graphs which are used to describe properties of directed hypergraphs which are suitable to describe many biological networks, e.g., metabolic networks.

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