

## Geometry and dynamics related with vertex-transitive groups of automorphisms of graphs

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In the talk the following topics concerning vertex-symmetric (di)graphs (i.e. (di)graphs with vertex-transitive groups of automorphisms) are discussed :

1. Upper boundaries for the length of a shortest directed path with a given distance between initial and terminal vertices (we base on [1] and [2]).
2. Dynamics of cones of vertex-symmetric digraphs (we base on [1]).
3. Vertex-symmetric graphs with infinite vertex stabilizers (we base on [3]).
4. Geometry of tracks of vertex-symmetric graphs (we base on [3]).

### References

- [1] V.I. Trofimov, On geometric properties of directed vertex-symmetric graphs, European J. Combin. 27 (2006), 690–700.
- [2] V.I. Trofimov, On the fastest moving off from a vertex in a directed regular graph, Math. Notes 82 (2007), 691–702
- [3] V.I. Trofimov, Vertex stabilizers of graphs and tracks. I, European J. Combin. 28 (2007), 613–640.

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