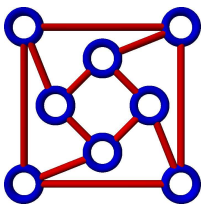

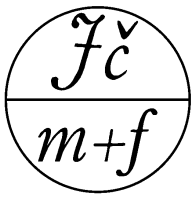

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Directed strongly regular graphs

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Since the main objects of interest in algebraic graph theory are highly symmetric graphs, strongly regular graphs are playing a central role in this area. One of their possible generalization for directed graphs was given by Duval in 1988.

A directed strongly regular graph (DSRG) with parameters (n, k, t, λ, μ) is a regular directed graph on n vertices with valency k such that every vertex is incident with t undirected edges; the number of directed paths of length 2 directed from a vertex x to another vertex y is λ, if there is an arc from x to y and μ otherwise.

In this talk we mention their basic properties and several constructions of such graphs.