

Cut-through connections of graphs

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(joint work with Daniela Matisová)

Let e_1, e_2, e_3, e_4 be the edges incident in this order to the vertex v in some rotation in 4-regular graph G . The pairs of edges e_1, e_3 and e_2, e_4 are called *CT-adjacent*. A path is called *CT-path*, if any two consecutive edges of the path are *CT-adjacent*. A 4-regular graph is called *CT-connected*, if there exists a *CT-path* between any pair of its vertices. In this talk we show complete characterization of *CT-connection* of 4-regular graphs regarding to their Gauss code or extended Gauss code respectively.