



SEMINARIUM MATEMATYKA DYSKRETNA

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ON 1-PLANAR GRAPHS

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A graph is called 1-planar if it can be drawn on the plane so that each edge is crossed by no more than one other edge. We give a survey of properties of 1-planar graphs from the point of view of recognition, local structure, colourings, existence of long/short cycles and relations to selected graph operations, showing both similarities and fundamental differences when compared to planar graphs. Also, we present several open problems and perspectives on future research of these graphs.