

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

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## On properties of $k$ -planar and outer- $k$ -planar graphs

### Content :

A graph  $G$  is called  $k$ -planar if there exists its drawing  $D(G)$  in the plane such that each edge of  $D(G)$  is crossed at most  $k$  times. For small  $k$ , we survey known results on  $k$ -planar graphs from the point of view of global properties, algorithmic aspects of recognition, local structure, colourings and hamiltonicity. We also introduce a novel concept of outer- $k$ -planar graphs which are analogous to outerplanar graphs, and explore some of their properties.

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