

Non-Planarity of Graphs

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A planar graph is a graph that can be drawn into the plane without any edge crossings. We can test planarity efficiently, and many problems are easier to solve on planar graphs than on non-planar ones. However, thinking about non-planar graphs, one may ask whether they are “very” non-planar, or only “slightly” so. We will look at different measures for non-planarity, investigate their properties and computation, and discuss their usefulness in the context of allowing more efficient solution strategies, akin to those for planar graphs, for other problems.