

Constructions for configurations of points and circles

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Configurations of points and circles in the plane go back to the classical incidence theorems of Miquel and Clifford, but relatively few results are known in the period since then. In this talk we present some constructions for new classes of such configurations, among them, of the point-circle versions of a generalization of the classical Desargues (10_3) point-line configuration. In these constructions, certain graphs with prescribed properties play a key role. We are interested, in particular, in obtaining configurations from the skeletons of regular maps such that they are isometric, i.e. all the circles in them are of the same size.