Abstract. A signed graph is a pair \((G, f)\) in which \(G\) is a graph and \(f\) is a labelling of the edges of \(G\) with elements of the multiplicative group \((+, -)\). A circle (i.e., simple closed path) in \(G\) is said to be negative when the product of signs on its edges is negative, otherwise the circle is said to be positive. A subgraph of a signed graph is called balanced when it does not contain any negative circles.

A signed-graphic matroid is a matroid whose elements may be considered as the edges of a signed graph \((G, f)\) with rank function described as follows. If \(X\) is a collection of edges in \((G, f)\) and \(G:X\) denotes the subgraph with edges \(X\) and no isolated vertices, then the rank of \(X\) is the number of vertices in \(G:X\) minus the number of balanced components in \(G:X\).

In this talk we will describe how connectivity of a signed-graphic matroid is related to connectivity of its corresponding signed graph. Also, for \(k=1, 2,\) and \(3\) we will describe how exact \(k\)-separations of a signed-graphic matroid translate into separations of its signed graph.