

Uniformity in Kirchhoff Graphs

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Kirchhoff graphs are vector graphs that satisfy the Kirchhoff laws and thus whose cycles form a basis for the null space of some matrix with rational entries and whose vertex cuts lie in the row space of this matrix. Two-connected Kirchhoff graphs (in the vector-graph sense) are uniform in that each edge vector appears the same number of times in the graph. This presentation will discuss what a Kirchhoff graph is, and then why vector-graph two-connectedness is the key property in proving Kirchhoff graph uniformity.

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