

TROPICAL GRAPH CURVES

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We study a tropical analogue of the notion of graph curves. Given a connected 3-regular graph G , we define a notion of tropical graph curve associated to G and show their existence when G is a 3-regular, three-connected planar graph. Furthermore, we realize these tropical graph curves as tropicalizations of graph curves. As an application, for smooth curves with a 3-regular, three-connected planar graph as their Berkovich skeleton, we construct canonical embeddings whose tropicalization preserves the topology of a Berkovich skeleton.