

Iterating evolutes and involutes

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Abstract

The evolute of a plane curve is the envelope of its normals; the involute is a converse construction: the evolute of an involute is the given curve. In this talk I shall discuss iterations of these two constructions, in the continuous and the discrete settings. In the latter case, one deals with polygons, and one considers two discrete analogs of the normals: the bisectors of the angles, and the perpendicular bisectors of the sides. The dynamics of these two constructions is very different.

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