The mathematical structure of Bézier curves in the plane

Kuo-Wei Lee

Department of Mathematics

National Changhua University of Education

Abstract

Bézier curves are interesting and mysterious curves defined by summation of weighted control points (vectors), where the weights are binomial coefficients. They are broadly applied in computer graphing design. In this talk, we will discuss Bézier curves in mathematical parts. Not only we give some general properties of Bezier curves, but also we will discuss the mathematical structure of Bézier curves of degree two and higher degree.