

NUMBER THEORY SEMINAR

Implicit Representations of Epitrochoids and Hypotrochoids

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WHERE: Chase 227

ABSTRACT:

Representations of a given curve may consist of implicit or parametric equations. We will describe the different methods of passing from one of these representations to another, then apply these methods with regards to epitrochoids and hypotrochoids which are the families of curves that are produced by tracing the path of a point affixed to a circle as it rolls around the inside or outside of a stationary circle. When the point affixed to the moving circle is on the circumference, epicycloids and hypocycloids are produced. We will provide several conjectures and results on the implicit forms of epitrochoids and hypotrochoids, with emphasis on epicycloids and hypocycloids.

Any questions, please e-mail: rnoble@mathstat.dal.ca.