

# Hermite approximation with high accuracy for space curves in $\mathbb{R}^d$

Abedallah Rababah

## **Abstract**

In this talk, it is shown that a space curve in  $\mathbb{R}^d$  can be approximated by a piecewise polynomial curve of degree  $m$  with order  $(m+1) + \lfloor (m+1)/(2d-1) \rfloor$  rather than  $m+1$ . Moreover, we show that the optimal order  $(m+1) + \lfloor (m-1)/(d-1) \rfloor$  is possible for a particular set of curves.