Subdivision Algorithms for Non-Singular Curves

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The following is a rough outline of my lecture. The references are simple starting points and very much biased towards what I happened to have on hand; they are in no sense an attempt to build a bibliography on the subject.

I General Background

- A Interval Arithmetic: *Interval Analysis* Ramon E. Moore. Prentice Hall, Englewood Cliffs, NJ, 1966
- B The Situation in 1-d: *Integral Analysis of Evaluation-Based Root Isolation*. Burr, Krahmer and Yap. 2008 (`http://cs.nyu.edu/yap/papers/SYNOP.htm#integral`)

II Historic Algorithms

- A Marching Cubes: *Marching cubes: A high resolution 3D surface construction algorithm*. Lorensen and Cline. SIGGRAPH 1987
- B Snyder's Algorithm: *Interval analysis for computer graphics*, Snyder, SIGGRAPH 1992
- C Plantinga-Vegter Algorithm: *Isotopic approximation of implicit curves and surfaces*. Plantinga and Vegter. The Visual Computer: International Journal of Computer Graphics. 23, 1, December 2006. (Also published in 2004)

III Global Deformation Approach: Ask me. Also `http://www.mpi-inf.mpg.de/~bgalehou/`.