

CSCI-4962: Three-Dimensional Computer Graphics
Class 13: October 10, 2002
B-Splines and NURBS

Today's Class

Today we will continue our discussion of B-Splines, and then look at NURBS.

1. B-spline curves and their properties
2. Non-uniform B-splines
3. Rational splines
4. NURBS (Non-Uniform Rational B-Splines): These are the most general form of splines we will discuss. They provide an exact representation for conics and are invariant to perspective transformations.

Reading

Chapters 10.7–10.8, and 10.12.4 of the Angel textbook.
Chapter 12 of the OpenGL red book.

Next Class

Spline surfaces, and Midterm review.