

#8: Curves and Curved Surfaces

CSE167: Computer Graphics

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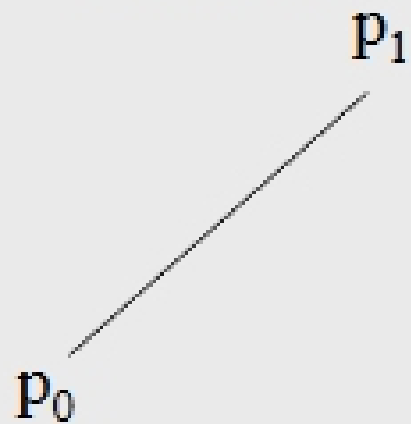
UCSD, Winter 2006

Outline for today

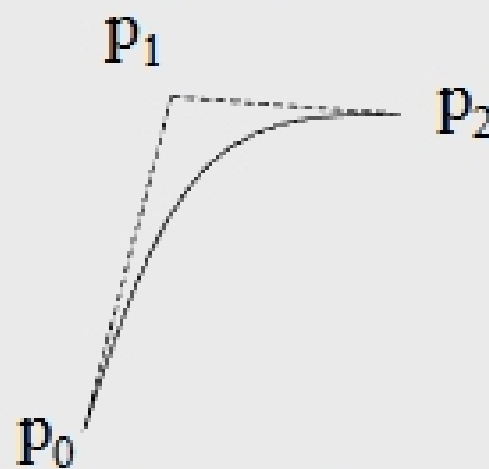
- *Summary of Bézier curves*
- Piecewise-cubic curves, B-splines
- Surface Patches

Curves: Summary

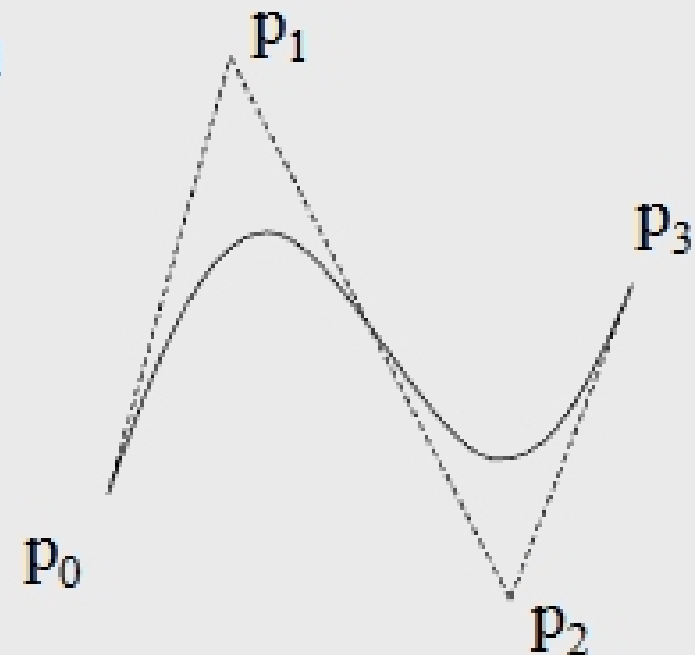
- Use a few control points to describe a curve in space
- Construct a function $\mathbf{x}(t)$
 - moves a point from start to end of curve as t goes from 0 to 1
 - tangent to the curve is given by derivative $\mathbf{x}'(t)$
- We looked at:
 - Linear -- trivial case, just to get oriented
 - Bézier curves -- in particular, cubic



Linear



Quadratic



Cubic