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Adaptive methods for the computation of open covers on compact curves. Preliminary report.

Let c denote a compact C^2 parametric curve embedded in \mathbb{R}^3 . For applications in computer graphics and animation, it is desirable to select finite open covers of c that support algorithmic efficiencies. We will describe a method for defining a particular open cover that is adaptive to curvature and is optimal for the widely-used computation of "bending energy", as will be defined in the presentation. (Received July 10, 2006)