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Robin Hartshorne*, Department of Mathematics, University of California, Berkeley, CA 94720-3840, and **Paolo Lella** and **Enrico Schlesinger**. *Smooth curves specialize to extremal curves*. Preliminary report.

We consider locally Cohen-Macaulay curves, that is, curves without isolated or embedded points, in projective 3-space. We show that any smooth curve belongs to an irreducible flat family containing an extremal curve. Since the extremal curves for a given degree and genus form an irreducible subset of the Hilbert scheme, we conclude that all smooth curves of degree d and genus g belong to the same connected component of the Hilbert scheme of locally Cohen-Macaulay curves. (Received September 07, 2012)