The objects studied in Computational Geometry were traditionally linear objects (points, line segments, triangles, . . .) and research on curved objects was quite theoretical.

Curves and surfaces have been considered from a more practical point of view for a few years, especially in Europe.\(^a\) Cross-fertilization between researchers in Computational Geometry and Computer Algebra allowed advances that this talk will try to summarize.

On the implementation side, the talk will in particular mention the work in progress in the \textit{cgal} Open Source project.\(^b\)

\(^a\)Let us mention two European projects, \textit{ECG} (Effective Computational Geometry for Curves and Surfaces - \url{http://www-sop.inria.fr/prisme/ECG/}) and \textit{ACS} (Algorithms for Complex Shapes with certified topology and numerics - \url{http://acs.cs.rug.nl/}).

\(^b\)\url{www.cgal.org}