

**ZMATH 1995a.00327**

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**Parametric curves: an introduction to curve design.**

Teach. Math. Appl. 12, No. 4, 167-173 (1993).

Der Autor zeigt die Vorteile der Parameterdarstellung fuer das Gestalten von Kurven. Beispiele einfacher Parameterkurven sollen Schuelern die geometrischen Ideen verdeutlichen, die CAD zugrunde liegen. Dabei wird erklart, wie der Computer die Form von Kurven veraendert. Gleichzeitig dient der Computer zur Visualisierung der geometrischen Ueberlegungen.

The design of complex curved shapes poses some difficult mathematical problems. The use of parametric curves has many practical advantages for the designer. Some of these can be demonstrated using simple parametric curves given a basic knowledge of vector algebra. It is therefore possible both to introduce students to some of the geometric ideas used in the rapidly developing field of computer-aided design and to provide further motivation for the teaching of vectors and two- and three-dimensional coordinate geometry. The computer can be used to visually support some of the theoretical results and vice versa. 2 D examples, as illustrated here, are well within the capabilities of the A-level or first-year undergraduate student. (orig.)

*Classification:* G74

doi:10.1093/teamat/12.4.167