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Parametric surfaces competition: using technology to foster creativity.

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Summary: Although most calculus students are comfortable with the Cartesian equations of curves and surfaces, they struggle with the concept of parameters. A multivariable calculus course is really the time to nail this concept down, once and for all, since it provides an easy way to represent many beautiful and useful surfaces, and graph them using a Computer Algebra System. Once the students grasp the concept of parametric representations of curves and surfaces, they can actually get quite creative, and even draw some very interesting computer art! In this paper we describe how we lead our students to combine mathematics and technology with creativity in an interesting way.

Classification: G75 M85 G95

Keywords: use of technology; parametric surfaces; calculus; mathematical concepts; creativity; activities; mathematics and art; computer graphic

<http://www.researchinformation.co.uk/timearch/2014-02/pageflip.html>