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### **Extreme Folding**

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Our understanding of the mathematics and algorithms behind paper folding, and geometric folding in general, has increased dramatically over the past several years. These developments have found a surprisingly broad range of applications. In the art of origami, it has helped spur the technical origami revolution. In engineering and science, it has helped solve problems in areas such as manufacturing, robotics, graphics, and protein folding. On the recreational side, it has led to new kinds of folding puzzles and magic. I will give an overview of the mathematics and algorithms of folding, with a focus on new mathematics and sculpture.