

***Daina Taimiņa Receives The Euler Book Prize from the
Mathematical Association of America***



The Euler Book Prize is awarded annually to the author of an outstanding book about mathematics. The Prize is intended to recognize authors of exceptionally well-written books with a positive impact on the public's view of mathematics and to encourage the writing of such books.

The Euler Prize, established in 2005, is given every year at a national meeting of the Association, beginning in 2007, the 300th anniversary of the birth of Leonhard Euler. This award also honors Virginia and Paul Halmos, whose generosity made the award possible.

Crocheting Adventures with Hyperbolic Planes, AKPeters; 2009

This book is unlike any previously considered for the Euler Prize. Indeed, it is unlike any book on hyperbolic geometry previously written, and it is in a different universe from any book on crochet previously written. But, when you look at it, the idea makes such perfect sense that it seems inevitable.

Eugenio Beltrami, who in 1868 first modeled the non-Euclidean geometry of Bolyai and Lobachevsky by surfaces of negative curvature, actually toyed with the idea of building such surfaces. He made a small fragment of such a surface out of paper, and the idea was taken up again by William Thurston in the 1970s. But the idea did not take off, let alone reach a wide audience, until Daina Taimiņa wrote this book. By bringing crochet technology to the subject, she makes it easy and fun to construct hyperbolic surfaces that vividly illustrate essential features of non-Euclidean geometry. The book is elegant, from both a visual and mathematical point of view.

Thus, *Crocheting Adventures with Hyperbolic Planes* is a novel approach to geometry that has brought a whole new audience to mathematics. In this respect it has greater outreach potential than any book we have previously considered. But it is much more than that; it is perfectly capable of standing on its mathematical feet as a clear, rigorous, and beautifully illustrated introduction to hyperbolic geometry. It is truly a book where art, craft, science, and mathematics come together in perfect harmony.

Before coming to the United States in 1996, **Daina Taimiņa** taught for twenty years at the University of Latvia. Currently she is an Adjunct Associate Professor of Mathematics at Cornell University. In 1997, she crocheted the first hyperbolic plane for use in a non-Euclidean geometry class. Since then her crocheted geometric models have turned also into fiber art pieces. She has given many public lectures and workshops popularizing mathematics for wide audiences. Her models have appeared in art shows in the United States, the United Kingdom, Ireland, Italy, Belgium, Germany, and her native Latvia. Her idea about crocheting hyperbolic planes was picked up by The Institute For Figuring and turned into the ecological project *Hyperbolic Crochet Coral Reef*, that involves thousands of participants worldwide. Taimiņa's crocheted hyperbolic planes are in the permanent *Textile Collection* of Cooper-Hewitt National Design Museum, the *American Mathematical Model Collection* in Smithsonian Institutions, the US State Department's *Art in Embassies Collection*, as well as others.