

# What I Learned in 25 Years Crocheting Hyperbolic Planes

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## Abstract

Twenty five years ago, I created my first simple crochet hyperbolic plane to have a sturdy model for students to explore in my geometry class. It was after I saw for the first time a paper model of the hyperbolic plane. The next step was to learn what is a “hyperbolic pair of pants” – I never had topology class myself. Through teaching my geometry class, I learned how these crocheted models could be used in the classroom. Some liked it, some thought it was inappropriate. Only later, when researching my book *Crocheting Adventures with the Hyperbolic Planes*, I learned that knitted models to illustrate the abstract mathematical surfaces were used already in 1885. It was an interesting learning experience when I first was invited to participate in an art show in 2005. Since then, there have been many more shows and talks, and workshops. And each of them has taught me something new.

However, my most valuable learning experience has been meeting people, in person and virtually, and learning what hyperbolic planes have meant for them. It made me think about what it is we are giving to people through math and art and how it shapes who we are.



**Figure 1:** “Dreams and Memories” at Riga International Contemporary Art Biennale, 2020.