

## Crocheting Adventures with Hyperbolic Planes

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### Abstract

Why do I keep crocheting hyperbolic planes? Since the very first one I made in 1997, I made countless others. It all began with my desire to make teaching hyperbolic geometry tactile -- more approachable to everybody. That simple crochet pattern I use to make a hyperbolic plane model essentially is a demonstration of exponential growth; and that growth can sometimes lead to unexpected results, as it happened in my case. In my talk I will speak about my journey beginning with classroom models, making fiber art pieces for exhibits, writing the book *Crocheting Adventures with Hyperbolic Planes* (2<sup>nd</sup> edition, CRC Press, 2018), and working on several art installations. I want to talk about the experiences I had along my journey, and what I learned from these experiences. I will also talk about the largest installation I have authored – *Dreams and Memories* (2<sup>nd</sup> Riga Contemporary Art Biennale, May 15-October 11, 2020).



**Figure 1:** Experiments crocheting surfaces with negative curvature (approx. 30 cm diameter)



**Figure 2:** "White Cloud" (approx. 2x2x2 m) – an installation for my largest solo exhibit *Hyperbolic Planes and Sustainability Networks* (Riga-Culture Capital of Europe, 2014)

