GERDA DE VRIES, University of Alberta
Making Mathematics with Needle and Thread: Quilts as Mathematical Objects

The connection between textiles and mathematics is intimate but not often explored, possibly because textiles and fiber arts have traditionally been the domain of women while mathematics was viewed as a male endeavour. How times have changed! Today, textiles and mathematics, like art and science, are recognized for their interwoven, complimentary attributes. In this presentation, I will examine the connection between textiles and mathematics, in the context of both traditional and contemporary quilts. In a sense, every quilt is a mathematical object, by virtue of the fact that it has shape and dimension. But some quilts are more mathematical than others, and in very different ways. I will show how mathematical concepts such as symmetry, fractals, and algorithmic design show up in the world of quilting through serendipitous and intentional design.