

## DEPARTMENT OF MATHEMATICS Spring 2023 MATH Colloquium Series

## The Poincare Disk and the Hyperquilt: Easing into models of the hyperbolic plane

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In hyperbolic geometry, given line *l* and point *p* not on line *l*, there exist multiple lines through point *p* parallel to line *l*. Wait, what? This can be challenging to model or even to imagine; mathematician Giovanni Girolamo Saccheri, after rigorous investigation, stated this idea to be "repugnant to the nature of straight lines." In this talk, we will briefly take stock of how we visualize Euclidean plane geometry, vanishing points, and spherical geometry, and then attempt to slide from there into visualizing models of hyperbolic geometry, starting with a partial model in the form of a homemade patchwork quilt, and moving to the Poincare Disk model.



4:00 PM BSS#166

FOR MORE INFO GO TO HTTPS://MATH.HUMBOLDT.EDU/GET-INVOLVED/MATHEMATICS-COLLOQUIUM

WE CORDIALLY INVITE YOU TO THE PRE-COLLOQUIUM TEA IN BSS#312 AT 3:30 PM