Inscribing Rectangles in Jordan Loops
Richard Schwartz, Brown University

The famous Square Peg Problem from Toeplitz asks if every Jordan loop has an inscribed square -- that is, 4 points which make the vertices of a square. I will show off a graphical user interface I made which explores this question and the related problem of inscribing rectangles in Jordan loops. I will sketch a proof, mostly through visual demonstrations, that all but at most 4 points of any Jordan loop are vertices of inscribed rectangles.