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Caitlin King Stanton* (cstanton@college.harvard.edu). *Packing Polynomials on Sectors of \mathbb{R}^2 .*

If S is a region in the plane and I its set of lattice points, we say that a polynomial $P(x, y)$ is a packing polynomial on S if when we restrict $P(x, y)$ to I , the resulting map is a bijection to \mathbb{N} . Fueter and Pólya showed that when S is the first quadrant, there are exactly two quadratic packing polynomials. In this talk we give a necessary condition for the existence of quadratic packing polynomials on rational sectors, and determine all quadratic packing polynomials on integral sectors. (Received September 12, 2013)