

1123-54-378

Kathleen Hake* (khake@math.ucsb.edu). *Polygonal Knot Space and Symplectic Geometry*. Preliminary report.

A n -sided polygon in \mathbb{R}^3 can be described as a point in \mathbb{R}^{3n} by listing in order the coordinates of its vertices. In this way, the space of n -sided polygons embedded in \mathbb{R}^3 is a manifold in which points correspond to piecewise linear knots and paths correspond to isotopies which preserve the geometric structure of these knots. Restricting to polygons of unit edge length gives a submanifold consisting of equilateral knots. We will discuss some aspects of the topology of the space of equilateral hexagons as well as its symplectic structure. (Received August 30, 2016)