

1155-57-319

Sandy Ganzell* (sganzell@smcm.edu), St. Mary's College of Maryland, 18952 E Fisher Rd, St. Marys City, MD 20686, and **Allison K Henrich**. *Virtual Mosaic Knot Theory*. Preliminary report.

We define a theory of virtual mosaic knots. Using the eleven standard mosaic tiles, we create a virtual knot mosaic by identifying boundary edges of a standard mosaic and viewing virtual knots as equivalence classes of knot diagrams on surfaces. The equivalence of virtual mosaics is given by a set of moves, including isotopy, stabilization and injection (into a larger mosaic), as well as Reidemeister moves. We also define the virtual mosaic number of a virtual knot or link L as the smallest n for which L can be realized on an $n \times n$ virtual mosaic. Virtual mosaic numbers are calculated for classical and virtual knots of small crossing number. (Received January 17, 2020)