

Virtual Mosaic Knots
Irina T. Garduno
University of Illinois at Chicago
llunag2@uic.edu
C: (773) 715-6120

Abstract

We extend mosaic knot theory to virtual knots and define a new type of knot: virtual mosaic knot. As in classical knots, Reidemeister moves are applied to a virtual mosaic knot to transform one knot diagram into another. Additionally, given the mosaic number of a virtual knot, we find an upper bound on the sum of the classical and virtual crossing numbers. Furthermore, given the classical and virtual crossing numbers of a knot, we find a lower bound on the virtual mosaic number of a knot.