1024-68-94 Craig S Kaplan* (csk@cgl.uwaterloo.ca), David R. Cheriton School of Computer Science, University of Waterloo, 200 University Avenue West, Waterloo, Ontario N2L 3G1, Canada. Escherization.

Given one or more shapes, the Escherization problem asks whether it is possible to discover tilings of the plane by prototiles that resemble the shapes as closely as possible. I present my optimization-based solution to the Escherization problem, which I have used to create images that resemble the tessellations in Escher's regular division notebooks. I then discuss some ideas for future work, and the extensions to the algorithms that would be necessary to accommodate those ideas. (Received January 02, 2007)