1117-52-186   **Robert Connelly** (`connelly@math.cornell.edu`), Cornell University, Malot Hall, Department of Mathematics, Ithaca, NY 14853, **Matthew Funkhouser** (`mjf298@cornell.edu`), Cornell University, Malott Hall, Department of Mathematics, Ithaca, NY 14853, **Vivian Kuperberg*** (`vzk2@cornell.edu`), Department of Mathematics, Malott Hall, Cornell University, Ithaca, NY 14853, and **Evan Solomonides** (`egs73@cornell.edu`), Department of Mathematics, Malott hall, Cornell University, Ithaca, NY 14853. *Packings of equal disks in a square torus, II.*

Packings of equal disks in the plane are known to have density at most $\pi/\sqrt{12}$, and it is known that this is never achieved in the square torus. We provide a new proof of this, and a proof that when the container is a planar square polygon the the error is on the order of $1/\sqrt{N}$, whereas for a square torus the error is on the order of $1/N$. We also show an algorithm that converges to a dense packing of equal disks in a square torus with pictures that show the convergence. (Received January 13, 2016)