1115-11-386 **Kei Nakamura*** (kei.nakamura@rutgers.edu). *Apollonian circle packings from Archimedean polyhedra.*

For any convexly realizable combinatorial polyhedron P, we introduce the notion of an Apollonian packing modeled on the polyhedron P. These circle packings should be regarded as natural generalization of the classical Apollonian packing, which arises when P is taken to be a tetrahedron. In this talk, we consider Apollonian packings that are modeled on Archimedean polyhedra. Remarkably, for some of these polyhedra, one can construct Apollonian packings with all constituent circles having integer bends. We examine the arithmetic properties of the set of bends, and discuss the local-global conjecture for these packings. This talk is partly based on joint work with Alex Kontorovich. (Received September 22, 2015)