

1105-51-113

**Feng Luo\*** (fluo@math.rutgers.edu), **D. Gu**, **J. Sun** and **T. Wu**. *Discrete uniformization theorem for polyhedral surfaces.*

We introduce a notion of discrete conformality for polyhedral surfaces and prove a discrete version of the uniformization theorem. The result can be considered as a counter-part of Koebe-Andreev-Thurston's circle packing theorem in the polyhedral setting. We will discuss the role of Ptolemy identity in discrete conformality and some of the related open problems including a discrete Riemann mapping conjecture. This is a joint work with David Gu, Jian Sun and Tianqi Wu. (Received September 12, 2014)