

Undergraduate Mathematics Colloquium

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“Conformal maps and circle packing”

Friday September 2

Talk at 4:00 in Herman Brown 227

Tea at 3:30 in Herman Brown 438

ABSTRACT: Conformal maps are very important transformations in the study of 2-dimensional geometry. We'll discuss what they are and what they look like at small scales, making sense of the mantra that "they send infinitesimal circles to infinitesimal circles." As it turns out, these maps can be approximated using finite combinatorial circle packings. This algorithm provides a visual approach to one of the most important theorems in complex analysis, the Riemann mapping theorem.

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