

Circle packings on surfaces with complex projective structures

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Circle packings and circle patterns make sense on a surface equipped with a complex projective structure, namely, a geometric structure modelled on $\mathbb{C}P^1$, with transition functions in $\mathrm{PSL}(2, \mathbb{C})$.

Kojima-Mizushima-Tan proposed a conjecture that would provide a convenient parameterization of those circle packings and, in a slightly generalized version, of circle patterns on those surfaces. I will describe a properness result that gives weight to this conjecture and might be useful in proving it.

Joint work with Andrew Yarmola.