Department of Mathematics Seminar

On Koebe's conformal uniformization conjecture

By

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Abstract: The Riemann mapping theorem asserts that every simply-connected proper subdomain of the complex plane can be conformally mapped onto the unit disk. In other words, every simply-connected domain in the Riemann sphere (and not equal to it) is conformally equivalent to a domain whose complement is either a disk or a point. Koebe conjectured (1908) that every domain in the Riemann sphere is conformally equivalent to a circle domain, i.e., a domain whose complementary components are either points or disks. Recently there has been a series of important works. In this talk I discuss a recent result with Kai Rajala (University of Jyvaskyla) that confirms the conjecture for domains that satisfy conditions involving quasi-tripods. A quasi-tripod is any quasisymmetric image of the standard tripod.

Date: Tuesday, 13 May 2025
Time: 17:30 (GMT+3)
Place: ZOOM
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