Mathematics, Statistics, and Computer Science   **@ UIC**

Graduate Groups and Dynamics Seminar

Quasicircle boundaries and exotic almost-isometries

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Abstract: For negatively curved surfaces, we study visual metrics on the boundary at infinity of their universal covers. We prove that the visual metric is classified up to bi-Lipschitz equivalence by its Hausdorff dimension, and we use this to construct many non-isometric negatively curved surfaces whose universal covers are almost-isometric (= quasi-isometric with multiplicative constant 1).

As an application, we answer a question Alex posed in the first seminar this semester (due to him? Or Hamenstaedt?): Are there negatively curved metrics on a surface such that they are not isometric in any finite cover but almost-isometric on the universal cover?

Joint work with Jean-François Lafont and Ben Schmidt.

Tuesday, October 22 at 4:00 PM in 612 SEO