

Mathematics Colloquium

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Holes in the Disk Set

Abstract: The curve complex for a surface encodes a great deal of information about the structure of the mapping class group. Natural subcomplexes abound, each related to some aspect of two or three-dimensional topology.

After a gentle introduction to these ideas we will focus on the disk set, introduced by McCullough, and show that it is not quasi-isometrically embedded in the curve complex. This result should have applications to the study of the handlebody group. Our interest is somewhat different: we propose an algorithm which, given a Heegaard diagram, computes the Hempel distance up to a bounded error.

The latter is joint work with Howard Masur.

Tuesday, February 1

4:00 pm

204 Smith Hall

Please note special day