

2012-2013 Distinguished Lecture Series UCLA Department of Mathematics

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Lecture 1: **Hyperbolicity in geometry**

Abstract: The concept of a contracting geodesic in a metric space is introduced. Examples are geodesics in the hyperbolic plane. We discuss more general examples, with applications to rigidity in mind.

Lecture 2: **Hyperbolicity in dynamics**

Abstract: The concept of a hyperbolic dynamical system is introduced. Examples are the geodesic flow on a closed hyperbolic surface. We weaken the concept and discuss geometric examples which relate to hyperbolicity in metric spaces as in Lecture 1, with applications to rigidity in mind.

Lecture 3: **Hyperbolicity in groups**

Abstract: The notion of a hyperbolic group is introduced. Examples are the fundamental group of a closed surface of higher genus. We discuss more general hyperbolic features of groups inherited by interesting actions of the group on spaces with hyperbolic features relating to lectures 1 and 2.



Lecture 1

Tuesday, May 7, 2013

3:00 - 3:50 pm

MS 6627

Lecture 2

Wednesday, May 8, 2013

3:00 - 3:50 pm

MS 6627

Lecture 3

Thursday, May 9, 2013

3:00 - 3:50 pm

MS 6627

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