

1050-20-4

Kevin Whyte*, University of Illinois at Chicago. *A rapid survey of coarse geometry.*

Coarse geometry is the study of non-compact metric spaces from a large scale perspective, ignoring the local structure. For instance, we consider the Euclidean plane and its integer lattice to be coarsely equivalent. Coarse geometry is closely connected to the study of infinite groups and to the topology of non simply-connected spaces. In this talk I will describe some of the basic motivations and examples in the subject, and how techniques from classical topology, geometry, and analysis appear. In particular, I will try to explain “coarse differentiation”, developed in some recent work on the coarse geometry of solvable groups, joint with Alex Eskin and David Fisher. (Received May 15, 2008)