

1121-30-40

Matthew Daniel Romney* (romney2@illinois.edu). *Quasiconformal mappings on the Grushin plane.*

Recent research in geometric analysis studies the problem of deciding when a metric space can be parametrized by a well-known model space such as Euclidean space under a quasiconformal mapping. There are several competing definitions of quasiconformality between metric spaces or metric measure spaces, so it becomes an interesting problem to determine how these relate to each other in general metric space settings. We will investigate these questions for the case of the Grushin plane, a classical example of a sub-Riemannian manifold. We prove an appropriate equivalence of definitions of quasiconformality in the Grushin plane, and we discuss limitations of this equivalence. This is joint work with C. Gartland and D. Jung. (Received July 05, 2016)