1114-30-236   **Kevin Wildrick*** (`kevin.wildrick@montana.edu`), P.O. Box 172400, Bozeman, MT 59717.
Quasiconformal mappings of high dimension distortion on foliations. Preliminary report.

Gehring's fundamental result on the higher integrability of the Jacobian of a quasiconformal mapping in space implies that such a mapping is a super-critical Sobolev mapping. More recent work of Balogh, Monti, and Tyson gives quantitative estimates on the frequency with which such mappings can distort the dimension of a fiber of a foliation, greatly generalizing the ACL property. The sharpness of these estimates for Sobolev mappings can be shown using a random construction. We will discuss the sharpness of these estimates for quasiconformal mappings in Euclidean space, as well as recent results in the much more difficult setting of the Heisenberg group. This is joint work with Balogh and Tyson. (Received August 28, 2015)