1096-68-2239 **Anastasios Sidiropoulos*** (sidiropo@gmail.com), CSE Dept., The Ohio State University, 589 Dreese Labs, 2015 Neil Av., Columbus, OH 43210. *L_1 embeddings of geometrically restricted planar graphs.*

The well-known planar embedding conjecture asserts that the shortest-path metric of every planar graph admits a constant-distortion embedding into L_1. This problem has received a lot of attention, and has important implications to the theory of multi-commodity network flows, and the design of approximation algorithms. So far, progress has been made only on topologically restricted planar graph classes, such as series-parallel, outerplanar [Gupta et al. '99], $O(1)$-outerplanar [Chekuri et al.'03], and $(K_5 \setminus e)$-free graphs [Chakrabarti et al. '08].

We discuss some of the limitations of current topological approaches, and present some recent progress on constant-distortion embeddings for geometrically restricted planar graphs. (Received September 17, 2013)