Madhusudan Manjunath* (mmanjunath3@math.gatech.edu), 686 Cherry Street School of Mathematics, Atlanta, GA, and Luo Ye. Smoothing of limit $g^1_d$s on metrized complexes. Preliminary report.

The notion of limit linear series on curves of compact type (reducible curves whose dual graph is a tree) introduced by Eisenbud and Harris has recently been generalized to metrized complexes of curves by Amini and Baker. Eisenbud and Harris showed that any limit $g^1_d$ on a curve of compact type can be smoothed to a $g^1_d$ on a smooth curve. We study the question of smoothing a limit $g^1_d$ on a metrized complex. We start with an example of a limit $g^1_d$ on a metrized complex that cannot be smoothed. We provide an effective characterization of a smoothable limit $g^1_d$ on a metrized complex and examples demonstrating this characterization. This is work in progress with Luo Ye. (Received September 15, 2013)