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Hailong Guo, Zhimin Zhang and Ren Zhao* (renzhao@wayne.edu), 656 W. Kirby, 1250 FAB,
Department of Mathematics, Wayne State University, Detroit, MI 48202. *Robust Polynomial
Preserving Recovery On Boundary.*

Two new strategies of gradient recovery technique for boundary are proposed and analyzed. It is proved to be superconvergent under uniform meshes for both strategies. Numerical experiments are conducted to demonstrate the robustness of the two strategies. In addition, numerical test shows that these recovery strategies are efficient and superconvergent under adaptive mesh. (Received September 16, 2013)