

1098-65-271 **Padmanabhan Seshaiyer*** (pseshaiy@gmu.edu), 4400 University Drive, MS 3F2, Mathematical Sciences, Exploratory Hall, George Mason University, Fairfax, VA 22030. *Transforming Practice through Undergraduate Research Experiences*. Preliminary report.

In this talk, we describe the role of a multidisciplinary undergraduate research experience that has helped students become change agents to serve as catalysts to help reinforce and drive reform across an institution. Undergraduate research in computational mathematics is used as an example to transform teaching and research practices for students and faculty from the high school to the graduate levels. The role of institution and faculty in helping transform students into change agents will also be described and specific examples of computational mathematics projects with applications to biological, bio-inspired and engineering systems will be discussed that has had cascading effects on student learning both locally and internationally. (Received January 27, 2014)