Improving mathematical undergraduate research at a small liberal arts college through scientific computing.

Undergraduate research (UR) at a small liberal arts college is a constant struggle. Limits on faculty time, institutional resources, and student availability can challenge even the most committed UR mentors. At our institution, an existing culture of UR-as-lab-science presents additional difficulties for mathematics. In 2011-2012, we developed and implemented a program in scientific computing to foster undergraduate research in mathematics and mathematically flavored research in partner disciplines. We discuss the successes and challenges of developing and maintaining the program, the interaction of the program’s staff and students with faculty and administration, and student perspectives and outcomes during the program and two years afterwards. (Received September 11, 2014)