

Mentoring Experience

University of Wisconsin Research Experience for Undergraduates (REU) in Number Theory, Summer 2006.

Designed and advised students on two eight-week projects dealing with arithmetic dynamics: one on primitive prime divisors in quadratic arithmetical dynamical systems, and one on Galois groups of iterates of a special family of polynomials. In the program's first two weeks I gave a series of lectures introducing the subject and stating and motivating the problems. Three students decided to work with me, Brian Rice on the primitive prime divisors project and Richard Gottesman and Kwokfung Tang on the Galois groups project.

I met daily with both groups, often for several hours. Towards the end of the program I read and gave detailed feedback on various drafts of both papers. Both groups worked well on their projects and met with success. Brian's project resulted in the paper "Primitive prime divisors in polynomial arithmetic dynamics," *Integers* 7 (2007), A26. Rich and Tang's project led to the paper "Quadratic recurrences with a positive density of prime divisors" which is presently submitted to the *International Journal of Number Theory*.