

1014-97-331

**Manmohan Kaur\*** (mkaur@ben.edu), 5700 College Road, Lisle, IL 60532. *Motivating Undergraduates with Different Backgrounds to do Mathematics Research*. Preliminary report.

In order to get undergraduates interested in mathematics, it is essential to introduce them to interesting and challenging problems in the field. Research opportunities serve not only as a catalyst to understand and appreciate a particular branch of mathematics, but also to kindle their long-term interest in mathematics in general.

In this presentation, I will discuss how we can motivate undergraduates from different backgrounds and interests to do useful research in mathematics.

In particular, I will discuss student research related to Cryptography, which was done by my undergraduate students in a topics course. These students had very different primary emphasis: it varied from math, to computer science, to chemistry, to engineering and law. These students presented their work at various professional meetings in the midwest, including the Illinois Section of the Mathematical Association of America, and the Rose-Hulman Institute of Technology. Most of the students found connections between mathematics and their primary field of study. (Received September 09, 2005)