Graeme Fairweather* (gfairwea@mines.edu), Mathematical and Computer Sciences Department, Colorado School of Mines, Golden, CO 80401, and Barbara Moskal. An International REU Site in Mathematics: Hong Kong.

During the summer of 2006, five male and five female undergraduates from universities across the United States participated in an eight week Research Experiences for Undergraduates (REU) Program in Hong Kong supported by the National Science Foundation. The lead U.S. institution was the Colorado School of Mines and the program was centered at Hong Kong Baptist University (HKBU), with a focus on numerical analysis and scientific computing. The students were assigned to research teams comprising a faculty member from a participating Hong Kong university - HKBU, The Chinese University of Hong Kong, or City University of Hong Kong - and two or three U.S. undergraduates. The research projects on which the students worked were the development of wavelet algorithms for high-resolution image reconstruction, the examination of subspace clustering methods for high-dimensional data, a spectral analysis of differentiation matrices, and numerical challenges for resolving spike dynamics for reaction-diffusion systems. This presentation will describe the history of this project, provide an overview of the 2006 REU experience and plans for future programs, and summarize the results of the project’s assessment efforts. (Received September 26, 2006)