

1035-15-880

**J. Amos, Iuliana Pascu and Vadim Ponomarenko\*** (vadim123@gmail.com), Department of Mathematics and Statistics, 5500 Campanile Drive, San Diego State University, San Diego, CA 92182, and **Enrique Trevino and Yan Zhang.** *The Multi-Dimensional Frobenius Problem.*

We consider the problem of finding maximal (in an appropriate partial order) solutions  $g$  to the linear Diophantine system  $Mx = g$ . We give conditions for the existence and uniqueness of  $g$ , bounds on  $g$ , and a reduction formula. This is work done by undergraduates in an REU program. (Received September 17, 2007)