

1056-J5-1711 **Erich Kreutzer*** (erkreutzer@davidson.edu), Box 6625, Davidson, NC 28035-6625. *Movie Recommendation Systems.*

In 2006 Netflix, an online movie rental company, started the Netflix Prize. This was a challenge to create an algorithm that would predict what a particular user would rate a given film using only the information in a dataset of over 100 million ratings from 480,000 users. If one were to improve upon Netflix's algorithm by 10%, then he or she would receive a \$1 million prize. This talk will discuss research that started with the Netflix prize and then branched out towards movie clustering and ranking. Further, another question arose that deals with newly released films. Given a past viewing history, is it possible to suggest which new film may be of interest to them? This presentation will discuss mathematical ideas on both research questions. In particular, the talk will focus on mathematical approaches that are accessible at the undergraduate level. (Received September 22, 2009)