

**Meeting:** 1003, Atlanta, Georgia, SS 9A, AMS-MAA-SIAM Special Session on Research in Mathematics by Undergraduates, I

1003-05-170            **Francesca Duncan\*** (fancyone0103@hotmail.com) and **Mariam Konate** (konate@vt.edu). *A Combinatorial Study of RNA Sequences*. Preliminary report.

Combinatorics is instrumental in the analysis of RNA sequences. Combinatorial strategies to recover an RNA chain given a complete enzyme digest have been developed for single stranded RNA. In 2002, it was discovered that double-stranded RNA plays an instrumental role in a previously unknown phenomena now called RNAi. In this paper we focus on questions motivated by recent developments in the investigation of RNAi and extend some combinatorial strategies to double stranded RNA. (Received August 17, 2004)