1056-05-16   **Richard P. Stanley*** (`rstan@math.mit.edu`), Department of Mathematics, M.I.T., Cambridge, MA 02139. *Increasing and decreasing subsequences.*

The three lectures will be on permutations of finite sets, focusing on combinatorics but including connections with many other areas. The lectures will be mostly independent from each other and aimed at a general mathematical audience. The first lecture will cover increasing and decreasing subsequence of permutations of $1, 2, \ldots, n$. It will cover such topics as connections with Young tableaux and the RSK algorithm, the expected length and limiting distribution of the length of the longest increasing subsequence of a permutation of $1, 2, \ldots, n$, and an analogous theory for matchings. (Received August 26, 2009)