Negative correlation inequalities and log-concavity

Date Tuesday, February 24

Time 5:30 pm

Location 507 Math

Abstract: Correlation inequalities are statements about how events in a probability space positively or negatively reinforce each other. After briefly discussing the better-understood theory of positive correlation, I will talk about some negative correlation inequalities and their relationship to celebrated conjectures of J. Mason about log-concavity properties of certain sequences arising from combinatorial objects. Along the way, I'll mention several interesting open problems.