## MICHAEL ROYSDON, Tel Aviv University

Extensions of Zhang' inequality

This talk will detail two recent papers concerning the Rogers- Shephard difference body inequality and Zhang's inequality for various classes of measures. The covariogram of a convex body with respect to a measure plays an essential role in the proofs of each of these inequalities. In particular, we will discuss a variational formula concerning the covariogram resulting in a measure theoretic version of the projection body operator. If time permits, we will discuss how these results imply some reverse isoperimetric inequalities.