

1062-52-187

**Dmitriy Bilyk\*** ([bilyk@math.sc.edu](mailto:bilyk@math.sc.edu)), 1523 Greene Str., Department of Mathematics,  
Columbia, SC 29208. *On sets with low extremal and  $L^2$  discrepancies.*

In this talk we shall discuss constructions of low discrepancy point distributions. It is well known, that many classical sets with low extremal discrepancy, such as the irrational lattice or the van der Corput set, fail to meet the optimal  $L^2$  discrepancy estimates. Several remedies exist for this shortcoming. We shall describe some of these techniques, in particular, a “de-randomization” of classical probabilistic arguments. (Received August 08, 2010)