

962-52-651

**Włodzimierz Kuperberg\*** ([kuperw1@auburn.edu](mailto:kuperw1@auburn.edu)), Department of Mathematics, Auburn University, Auburn, AL 36849-5310. *Packing congruent balls in the  $d$ -dimensional cube.*  
Preliminary report.

The following question is considered: What is the maximum radius of  $k$  congruent balls that can be packed in the  $d$ -dimensional unit cube? This talk surveys some old results and presents a few new ones in dimensions higher than 3, independent from the well-known applications of Hadamard matrices. (Received September 18, 2000)