# **APPLIED MATHEMATICS COLLOQUIUM**

# SOME KRONECKER PRODUCT OPTIMIZATION PROBLEMS

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### **ABSTRACT:**

Several problems that involve finding "best" Kronecker product (KP) approximations will be discussed, including (a) the approximation of a Markov matrix by the KP of two smaller Markov matrices, (b) the compression of a 3D tensor and (c) the generalization DFT matrix factorizations. In terms of work completed, (a) > (b) > (c). In terms of hard open problems, (a) < (b) < (c) !

#### MONDAY, DECEMBER 4, 2006 4:30 PM Building 2, Room 105

Refreshments at 4:00 PM in Building 4, Room 174 (Math Majors Lounge)

Applied Math Colloquium: http://www-math.mit.edu/amc/fall06 Math Department: http://www-math.mit.edu



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