

**JOINT COLLOQUIUM  
OF THE  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
AND  
MATHEMATICAL SCIENCES GROUP**

Friday, April 23, 2004  
4:00 p.m.  
Arts 208

**SPEAKER**

Rajesh Pereira

**TITLE**

*Some Results on Correlation Matrices*

**Abstract**

We give necessary and sufficient conditions for a correlation matrix of low order to be a convex combination of rank-one correlation matrices. We show the relations between this result and other topics such as optimization and quantum mechanics.