

# SOME MATRIX ALGEBRA PROBLEMS RAISED BY RECENT DEVELOPMENTS IN STATISTICS

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It is well known that matrix algebra is a useful and necessary tool in some of the disciplines of Statistics, such as Linear Models or Multivariate Distribution Theory. For instance, the calculus of expansions, moments, derivatives or cumulants related to the multivariate normal distribution involves the Kronecker product and power, the vec operator and the commutation and symmetrizer matrix. In this talk we revise the use of these concepts in some recent contributions to the field of kernel smoothing in Statistics.

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