

The role of matrix analysis in statistical genetics

Paulo Canas Rodrigues^{1,2,*}

¹CMA/FCT/UNL – Nova University of Lisbon, Portugal

²Department of Statistics, Federal University of Bahia, Brazil

*paulocanas@gmail.com

Abstract: Statistical genetics and the analysis of “big data” are two of the major hot topics in statistics nowadays. In both cases, as for any multivariate statistical method, the use of matrix analysis is essential to understand the patterns in the data. In this talk we will present an overview about the role of matrix analysis in (plant) statistical genetics and its usefulness in dealing with high-dimensional data. Some results on weighted singular value decomposition and on how to deal with missing values in two way data tables, with genotype by environment interaction, are presented.