

# **Analysis of face shape variation in 3000 faces using pair wise distances between landmarks**

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The purpose of this presentation is two-fold. First to describe the Magna database, a sample of over 3000 3D facial images collected for an FBI-sponsored project directed by the author. Some of the basic findings of the project-which involved the work of Ian Dryden, Nick Fieller, Lucy Morecroft and others-will be mentioned in relation to the purposes of the original research.

Secondly, interesting features of a novel univariate analysis of pair wise distances between up to 30 anthropometric landmarks will be presented, with a discussion of their possible significance to the natural history of the face and to the genetics of normal face shape variation. A new-ongoing-research project, involving collection of face shape data and a large-500,000 SNP-genetic panel from each volunteer will be mentioned at the end.