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.