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1003-94-366 **Xiquan Shi*** (xshi@desu.edu), Department of Mathematics, Delaware State University, 1200 N. Dupont HWY, Dover, DE 19901, and **Fengshan Liu** (fliu@desu.edu), Department of Mathematics, Delaware State University, 1200 N. Dupont HWY, Dover, DE. *Affine Transformation Method in Automatic Image Registration*. Preliminary report.

Image registration is a fundamental task in image processing used to match two or more pictures taken, for example, at different times, from different sensors, or from different viewpoints. It arises from widespread scientific fields such as computer vision, medical image analysis, virtual reality, satellite data processing, surface matching, and so on. Over the years, a broad range of techniques has been developed for various types of data and problems. These techniques have been independently studied for several different applications, resulting in a large body of research.

Automatic image registration is to perform the image registration task without the guidance and intervention of users. There are many methods for automatic image registration. In this paper we use affine transformation method to study automatic image registration. (Received September 13, 2004)