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Ananda W A Bandulasiri* (a.bandulasiri@ttu.edu), Department of Mathematics, Texas Tech University, Lubbock, TX 79409, and **Victor Patrangenaru**. *A statistical method for glaucoma detection using tomographic images, a projection pursuit approach.*

A statistical method for Glaucoma detection using tomographic images is discussed. It is known that the ONH (optic-nerve-head) area contains all the relevant information on glaucoma. Mean change of the angles of the tetrahedron determined by four control points, three on the neural rim and the other one corresponding to the maximum depth of the ONH is tested for significance. Nonparametric bootstrap method is used for statistical analysis. A projection pursuit approach is applied at the end for the multivariate circular data. The statistical analysis is done using the data from Louisiana State University, Eye Center (LSU). (Received September 29, 2005)