Diagnostic Method for Human Immunodeficiency Virus (HIV) Using Particle Swarm Optimization

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**Summary:** Diagnostic technique for clinical data is the most challenging application area in data mining and knowledge discovery. In this paper, we adopt particle swarm optimization to determine cut-offs for diagnosing HIV (Human Immunodeficiency Virus) since there is given rules of positive diagnosis for 5 different HIV antigen markers. We compare the performance of particle swarm optimization by setting parameters for more accurate diagnosing HIV disease. Sensitivity, specificity, and accuracy will be used as performance measures.

**Keywords:** Particle swarm optimization, Sensitivity, Specificity

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