Abstract

Methods of Artificial Intelligence,
Proceedings of the AI-METH 2003 Conference,
5-7 Nov. 2003, Gliwice, Poland;
Burczynski T., Cholewa W., Moczulski W.; Eds.;
Silesian University of Technology,
ISBN 83-914632-7-3, Gliwice, Poland, 323-328 (2003)

Varmuza K., Grzymala-Busse J.W., Hippe Z.S., Mroczek T.:

Comparison of consistent and inconsistent models in biomedical domain: A rough sets approach to Melanoma data.

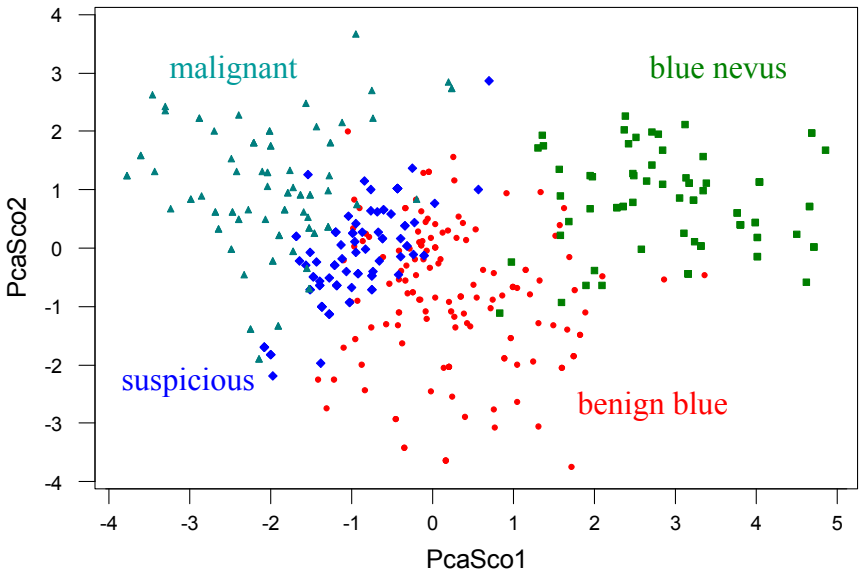
Various learning models – representing consistent and inconsistent knowledge, hidden in data sets – have been developed and compared. These models were generated by means of chosen supervised machine learning programs, namely: SCAN, *Belief*SEEKER and LERS.

The results gained allowed the selection and comprehensive analysis of the optimal learning model, suitable for reliable identification of unseen cases.

Example from PCA application

n = 410 objects (cases)
p = 14 features (asymmetry, color, diversity, total dermatoscopy score TDS), autoscaled

Score plot for PC1 and PC2 (21.8 and 11.0 % of total variance preserved)



Classification scheme