

Department of Applied Mathematics and Statistics  
The Johns Hopkins University

SEMINAR

Robert P. W. Duin  
Info. & Communication Theory Group  
Delft University of Technology  
The Netherlands

March 6, 2008  
304 Whitehead Hall  
Refreshments: 3:30 p.m.  
Seminar: 4:00 p.m.

**TRAINING CLASSIFIERS FOR NON-EUCLIDEAN DATA**

ABSTRACT

A frequently encountered problem is the big gap between the automatic analysis of data obtained by physical sensors and the human judgement of observations of the same events. Dedicated solutions are studied in various applications of man-machine interaction, multi-media studies, pattern recognition, and related fields. This problem is partly caused by the fact that similarities and dissimilarities as observed by humans have often a non-Euclidean or even non-metric nature, especially when they are related to sensor data.

In the presentation the problems will be discussed related to the embedding of non-Euclidean dissimilarities in vector spaces and the training of classifiers in such spaces.