

Paper title:

Online Learning with Kernels

1. Scope and relevance:

Relevance to the REALM project (1=borderline 5=spot on): 3

Contribution to the community (# citations, work extended by others?): 500+ citations (all versions) cited by Pegasos paper

What ML methods are used? Stochastic gradient decent, kernel based methods with large separation margins

What is the problem class / use case? (anomaly detection, regression, classification etc): Classification, novelty detection, regression

What is the application domain? General methods are described. One example on character writing novelty detection.

What type of data is studied? (time-series, steady-state, static/dynamic): Time series, with drift and switches

2. Quality and scientific soundness:

Clarity of the presentation. structure, is the problem well defined? Well written. Quite technical with some notation “hilbert space methods” etc. that are not well defined for a non-expert
Are the methods well described/referenced? Yes
Are the experiments repeatable/extendable? Yes
Are data sets publicly available? Yes
Are alternative methods evaluated? Yes comparisons are made in one example between Perceptron, ALMA and NORAM (their algorithm)