

Interactive comment on “The use of machine learning algorithms to design a generalized simplified denitrification model” by F. Oehler et al.

L. Luccarini (Referee)

luca.luccarini@enea.it

Received and published: 28 May 2010

This paper presents an interesting solution to predict denitrification process at the catchment scale, using artificial neural networks and boosted regression trees, both belonging to machine learning tools. The developed methodology aims to outperform a commonly used simplified model of denitrification process, NEMIS, based on a limited number of variables, using data come from different datasets from the literature merged into a single database. The application is complete and the used procedure to design, calibrate and validate the two machine learning models is appreciable. I have a remark on the paper about the statistical analysis of the input data (table 2 and figure 1), according to which the data do not seem homogeneous and it could be interesting classify or cluster them with a data mining approach. In general, however, the

C1180

manuscript is well organized and well written and the results are presented clearly.

Interactive comment on Biogeosciences Discuss., 7, 2313, 2010.