Illia Horenko (Institute of Computational Science Lugano):

Towards an optimization-driven all-inclusive data analysis

Abstract:

Common tools from machine learning and artificial intelligence are implemented as pipelines that subsequently - and separately - perform the feature selection, data reduction, model inference and model validation steps. Efforts taken over past years in formulating a unified "all-inclusive" mathematical theory and computational framework for a joint optimal solution of these problems will be explained, originating from a seminal work done almost 15 years ago together with Rupert Klein.