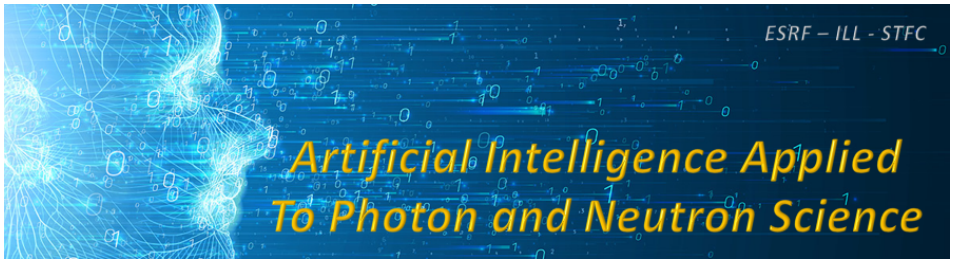

Contribution ID: **81** Type: **not specified**

Deriving the big picture from huge spatial datasets: How to make a little training data go a long way

Thursday, 14 November 2019 09:00 (50 minutes)

Analysis of massive spatial sensor datasets has been revolutionized by the advent of neural network methods. This class of methods has enabled identification and classification of spatio-temporal patterns and objects at multiple scales. Neural network methods need to be trained; the disparity between the very limited human ability to generate training data and the overwhelming training data requirements associated with massive dataset analyses has created a need to develop novel training technologies. I will describe the problem and discuss a variety of methods developed by our group and others to tackle this problem. I will give examples of these methods in the context of large scale microscopy and satellite analyses and discuss how these ideas should apply to broader sets of massive photon and neutron sensor analysis challenges.

Presenter: Prof. SALTZ, Joel (Stony Brook University)

Session Classification: Morning 1