**PV Fault Detection, Diagnostics, and Estimation Algorithms**

Outline and short description of potential learning based algorithms for evaluating solar PV data.

**Anomaly Detection**

*Description:* The identification of abnormal events, conditions, or observations that do not match with the expected.

*Methods:*

One-Class Support Vector Machine

Adaptive Resonance Theory

**Classification**

*Description:* The categorization or labeling of an event, condition, or observation based on shared characteristics.

*Methods:*

Multi-Class Support Vector Machine

Gaussian Process

**Estimation**

*Description:*

*Methods:*

Least-Squares Regression

Gaussian Process Regression