Regime Based Investing:

Method used to detect regime shifts:

1. Hidden Markov Model
2. Non-parametric approach

Metrics: return, standard deviation, Sharpe Ratio, Maximum Drawdown

Predicting Bubbles:

Method used to detect bubbles: LPPLS model

Some ideas:

1. Compare portfolio performance for different regime-change models
2. Include more factors in Markov Switching model to detect regime shift
3. Using machine learning models to tune hedge fund replication