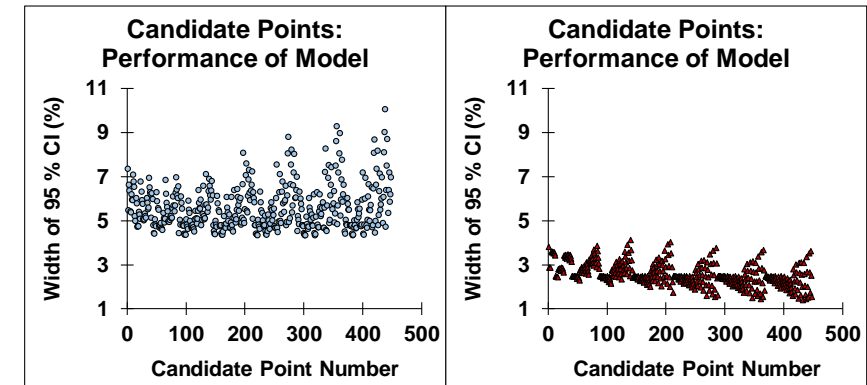
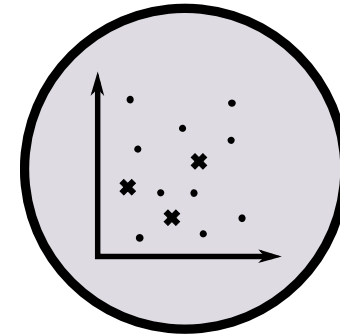


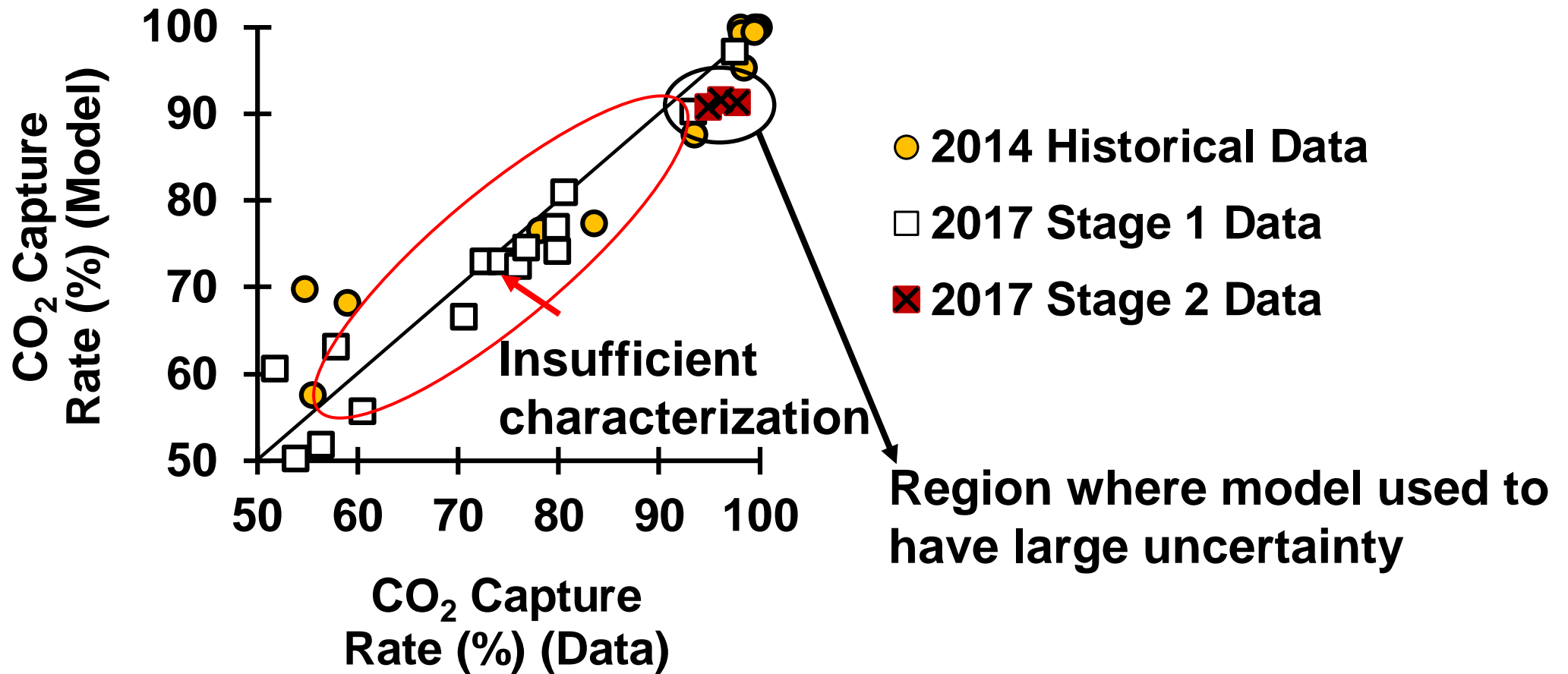
# Machine Learning for Optimal Test Campaign Design

**Michael Matuszewski**  
Associate Technical Director  
Carbon Capture Simulation for Industry Impact (CCSI<sup>2</sup>)

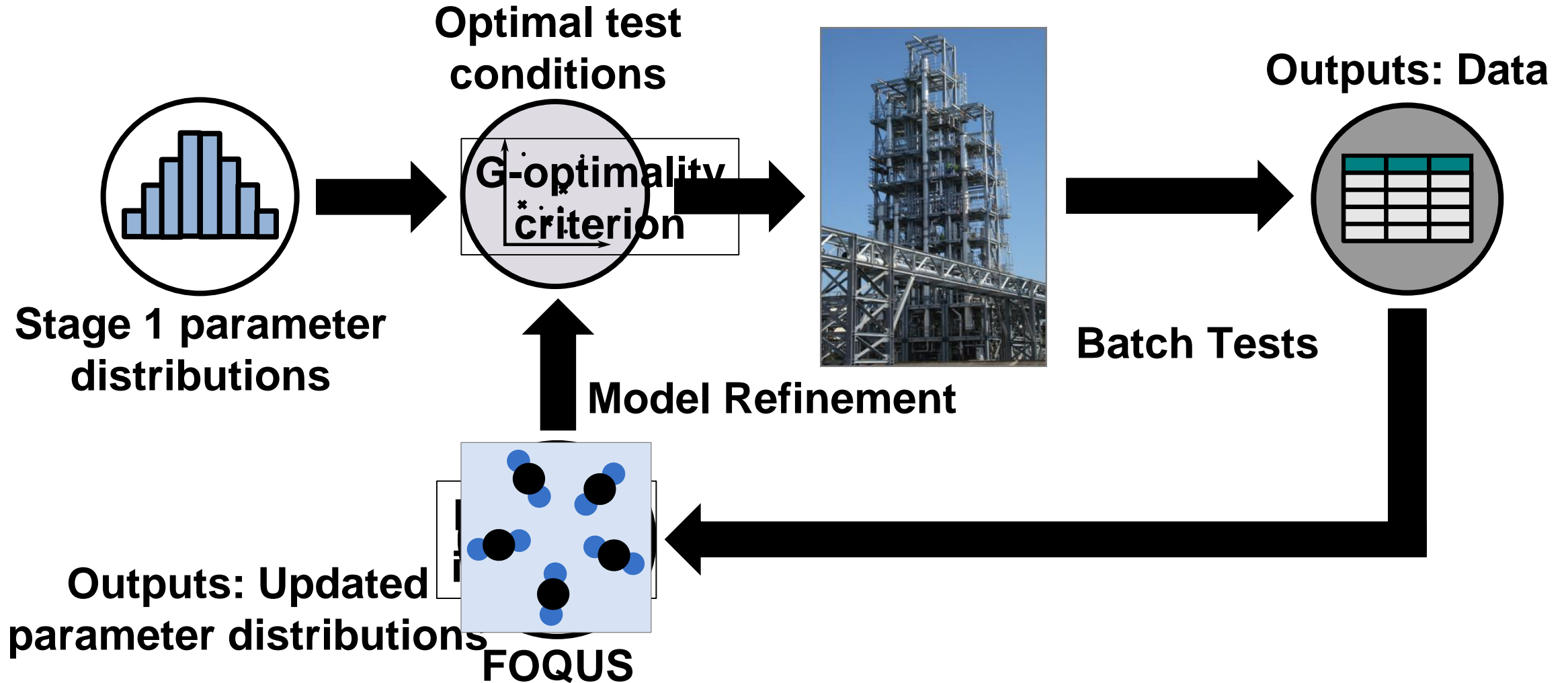


# Standard Design of Experiments Risk Output Clustering

## Comparison of Data

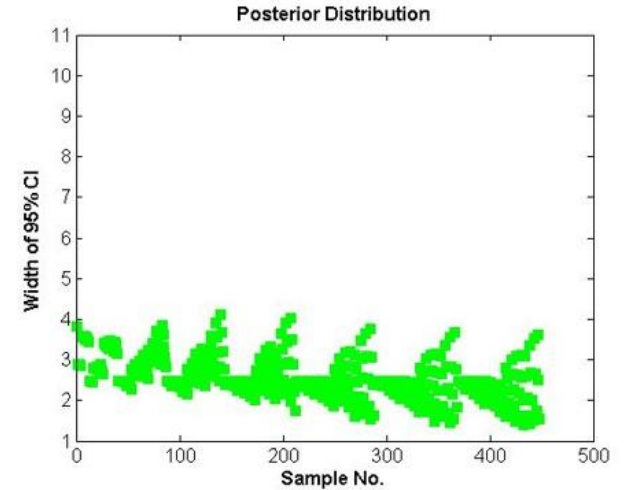
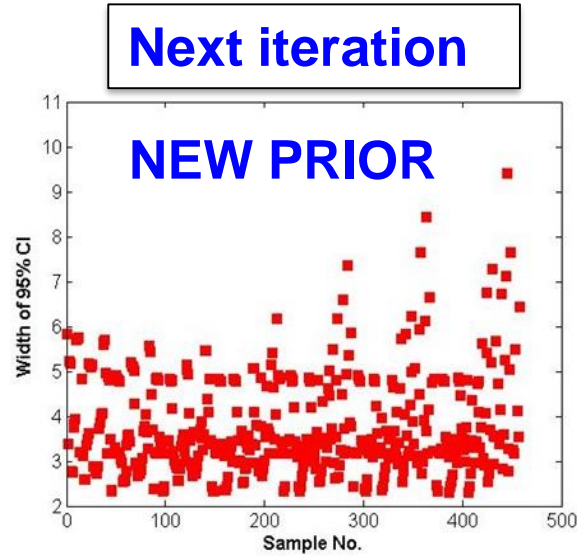
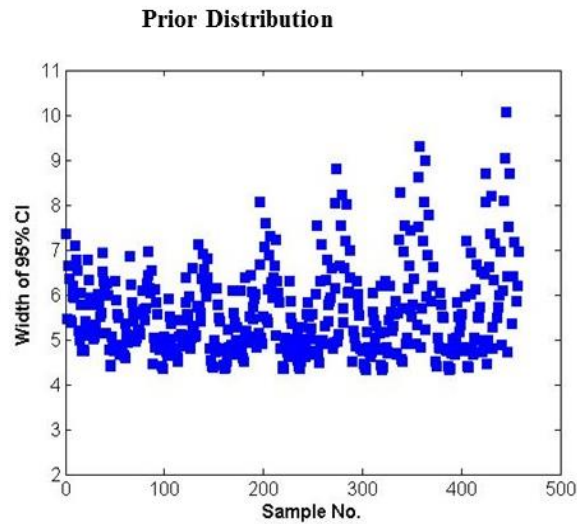


# Sequential Design of Experiments Leverages Real Time Data Generation for Model Refinement and Optimal Batch Generation

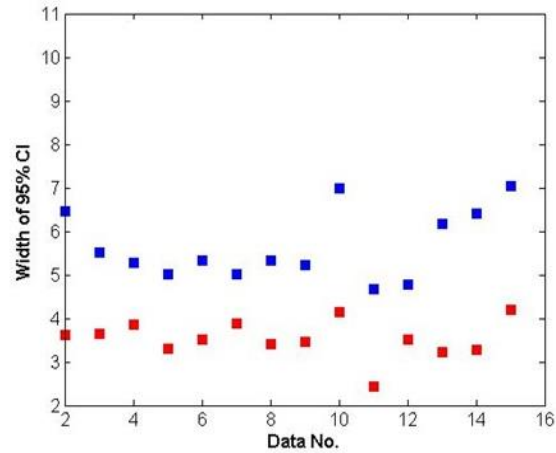


# Machine Learning Systematically Improves Prediction

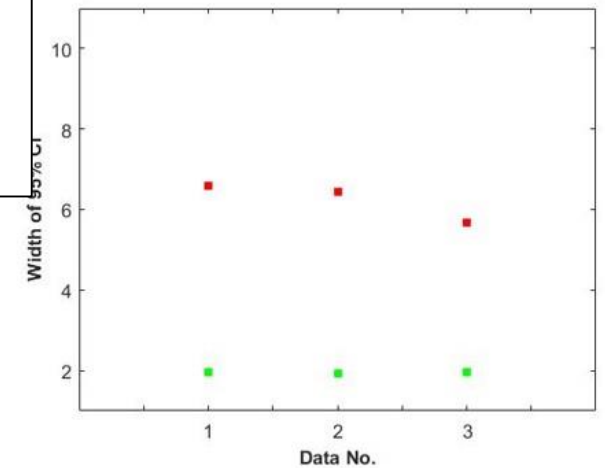
Candidate Points

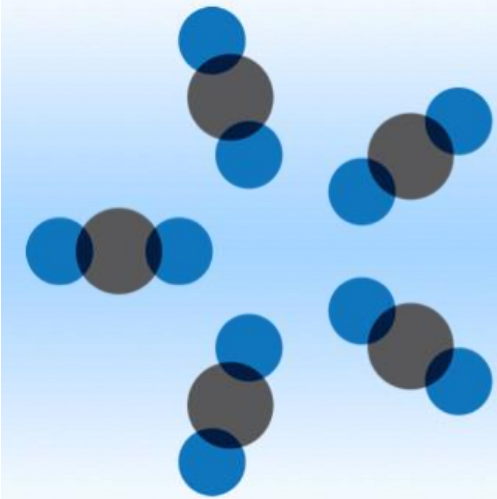


Points with Experimental Data



**50-70% Reduction in CO<sub>2</sub> Capture Prediction Uncertainty**





# CCSI<sup>2</sup>

Carbon Capture Simulation for Industry Impact

**For more information**

<https://www.acceleratecarboncapture.org/>

<https://github.com/CCSI-Toolset>

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