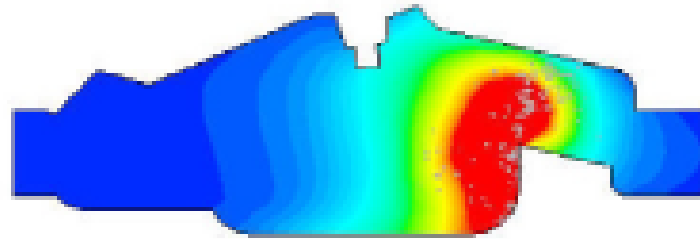

Burke Research Group:
*Data-Enabled Science and Engineering
for Energy and the Environment*

Prof. Michael P. Burke
Columbia University

One of our motivations:

*Advanced engines push the limits to improve efficiencies,
but require high levels of precise and characterization*



60° Injector (Optimized)

Tatschl et al. (2009)

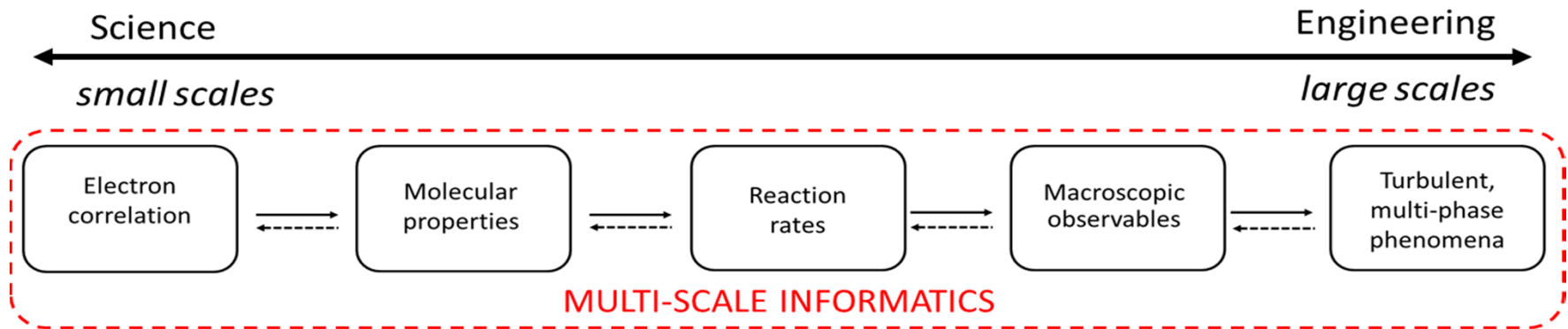
Int Multi-dim Engine Modeling Users

Predictive simulations *accelerate* development

Our approach (I):

Bridging the scales from science to engineering

“Science to Engineering Continuum”



High-accuracy prediction at *any* scale
informed by data at *all* scales

Our approach (II):

Pushing the limits of automation

