

# Oscillations Research Agenda

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# Research list technical and process

- Back to the basics - we must understand these oscillations
  - Exactly how they are happening
  - Being able to model them
  - You can now ask the right question
- Data
  - sampling rate of PMU measurement may not be enough
- Analysis and tools
  - Models and how they are developed, shared
- Operations
  - Is there a general method of oscillation tracing that works for all oscillation mechanisms
  - methods to deal with widely varying operating point (avoiding exhaustive exploration of all cases, robust control etc.)
  - reliable operation tools to determine the actions for system operator in real time operation to remove the oscillation
- Planning
  - Avoid it happening in the first place (the north star)
  - oscillation monitoring, identify operation patterns which lead to oscillation or improve damping. you could use AI to make it trendy
  - screening tools to identify system conditions for potential oscillation risk

# List technical and process (contd.)

- Solutions

- Can we get robust and generic solutions
- PODS
- Etc.

- Codes standards

- if something that was compliant earlier , is no longer - what processes and incentives should be in place to make a plant "compliant"
- can we generate a set of standards that are a good balance between stability and performance

We also need to bring in other “team members”

