



## Alex Stankovic Personal Info

- Distinguished Staff Scientist, SLAC
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- Research Interests: Modeling, Estimation and Control of Power Systems and Power Electronics
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## 2020-2021 Research Projects

1. Distributed Algorithms for State Estimation and Transient Stability (CURENT) – A.A. Saric
2. Integration of Data- and Physics-Driven Models in Electric Energy Systems (NSF) – A.T. Saric
3. Sparse Sampling of Energy system Data for Dynamic Phasor Estimation (ONR) – H. Lev-Ari
4. Identification of Very Large Models in Power Systems (NSF) – M. Transtrum
5. Expansion Planning for Off-Shore Wind Integration (National Off-Shore Wind R&D Consortium) – E. Hines

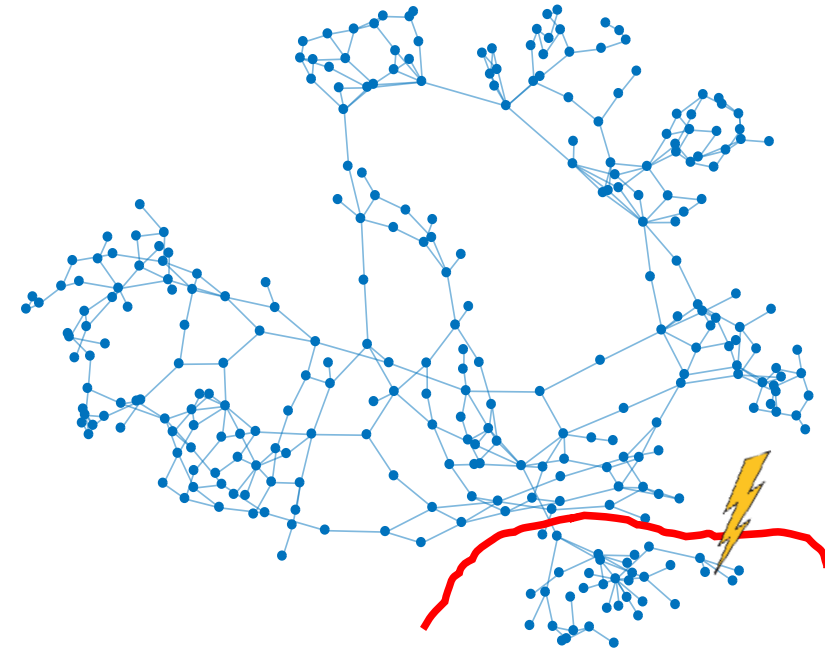
# Fully Distributed State Estimation and Transient Stability Simulations – A. Saric

## Project Objectives

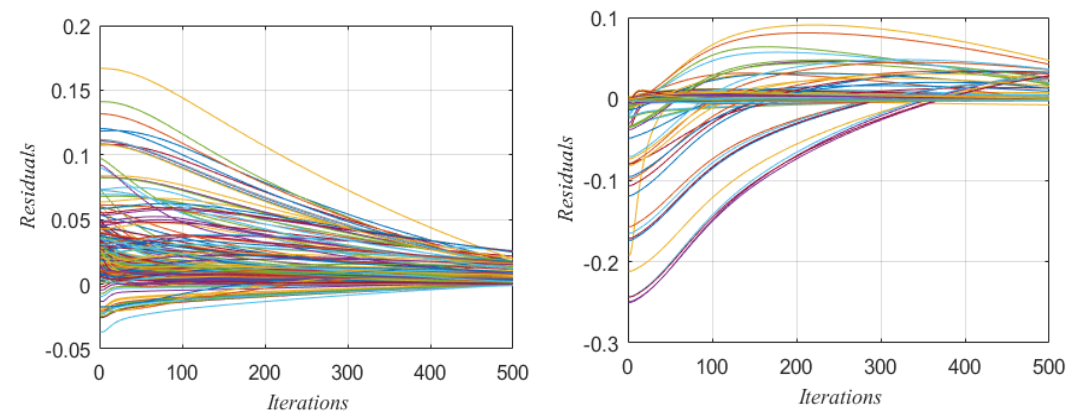
- Distributed algorithms allow for data privacy and the preservation of ownership rights of areas in an interconnected system.
- Distributed algorithms are better at coping with inevitable malfunctions in the communication layer.
- Distributed algorithms scale better than centralized ones.
- We address distributed state estimation and distributed transient stability simulation.

## Recent Achievements (preferably last year)

- Fully distributed state estimation – 300 bus.
- Explored fully distributed power flow (PSCC2022).
- Ongoing work on fully distributed transient stability simulation of systems with renewables.



**300 Bus System**



*AB Algorithm* – collaboration with Usman Khan 2