

## **Marcus Braun**

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## *Distributed Power Systems Analysis*

Historically, power systems have been operated and monitored from centralized control centers; system security analysis, state estimation, and the determination of optimal power flow have long been functions performed by large computers located at a single location. This project examines a new framework for analyzing a power system. By performing state estimation locally at individual nodes throughout the system, the computing burden is distributed across the whole system resulting in several potential benefits, such as real-time system awareness and enhanced security. This project presents preliminary simulation results of a distributed network operating on power systems of different scales and compares the approach with classical centralized state estimation.



Poster Number:      Session: