

CPS: Medium: Dynamic Pricing for Optimal Design of Sustainable Transportation Systems (1931980, 2019)

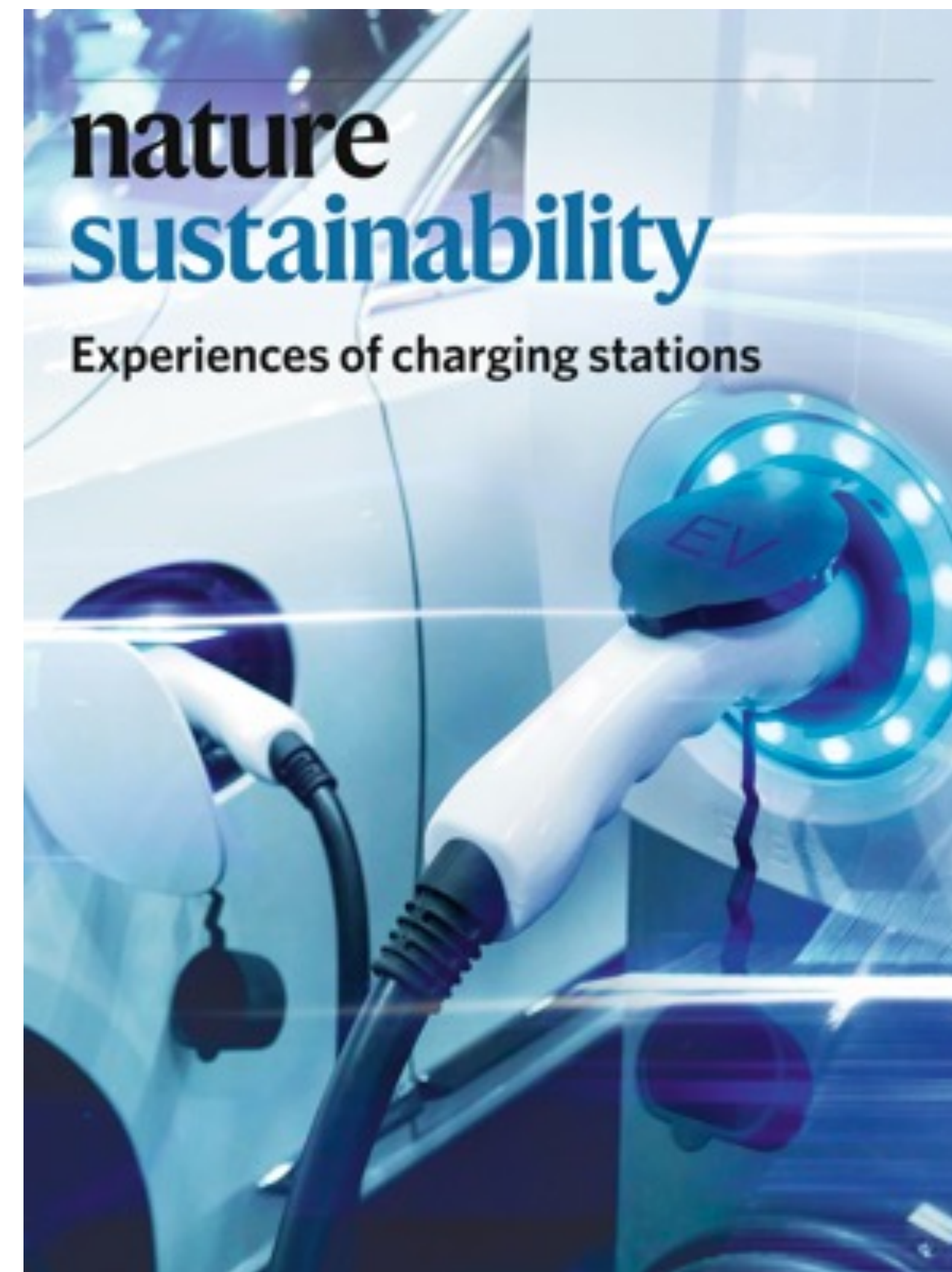
Emily Grubert (PI), Sam Coogan (Co-PI), Omar Asensio (Co-PI), Georgia Institute of Technology

Challenge:

- Electric vehicle (EV) charging has behavior-influenced cost, infrastructure, and environmental implications

Solution:

- Dynamic pricing based on behavior, infrastructure, and environmental impacts
- Emphasis on behavior and multi-infrastructure interactions (e.g., parking and charging)



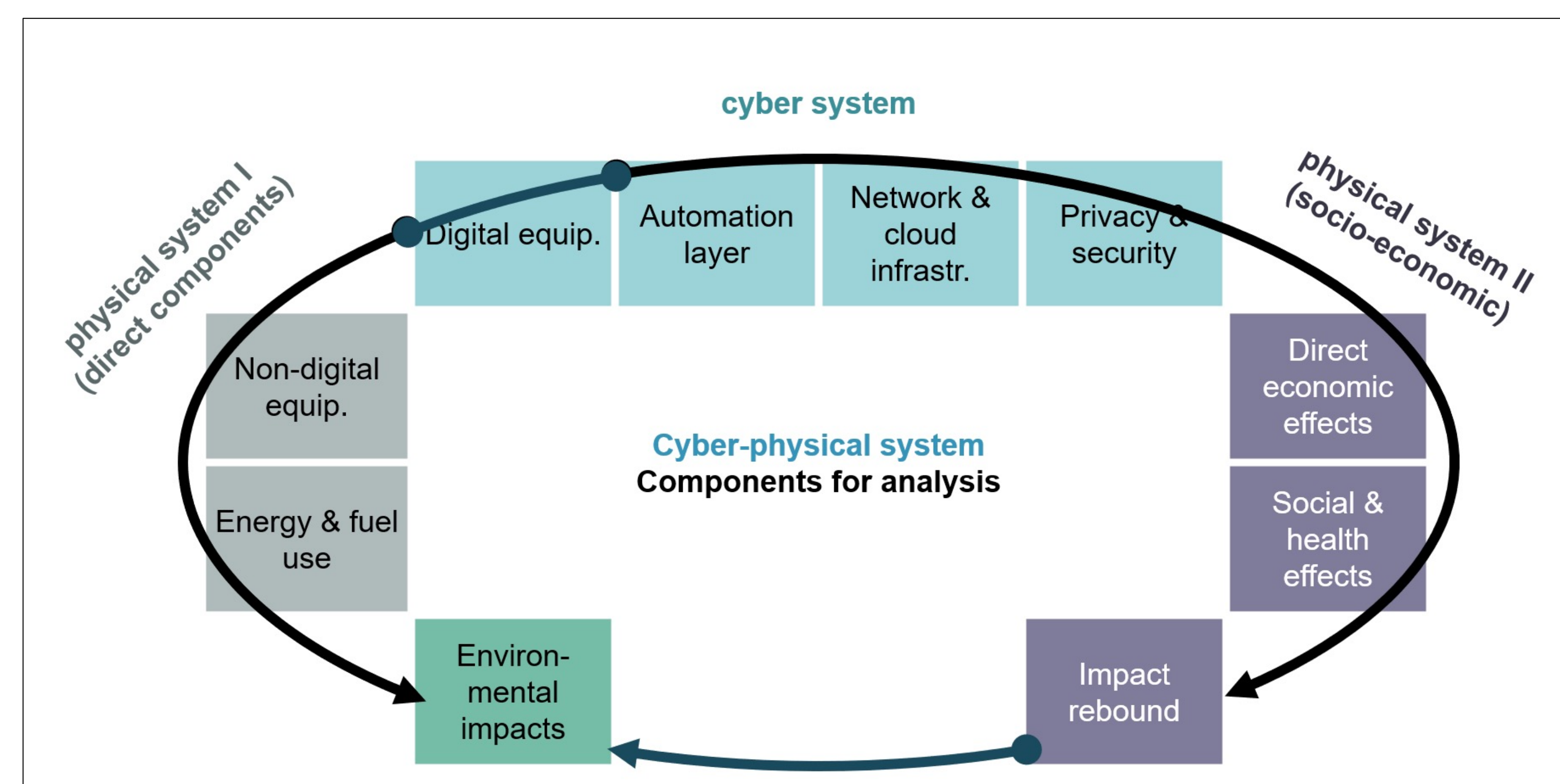
Asensio et al. 2020

Scientific Impact:

- Understanding behavior + interactions with performance indicators can inform optimal human-in-the-loop system design

Broader Impact:

- EVs can reduce climate and air pollution impacts with lower operational costs
- Project includes computational curriculum development



Mulrow, Gali, Grubert (in prep)