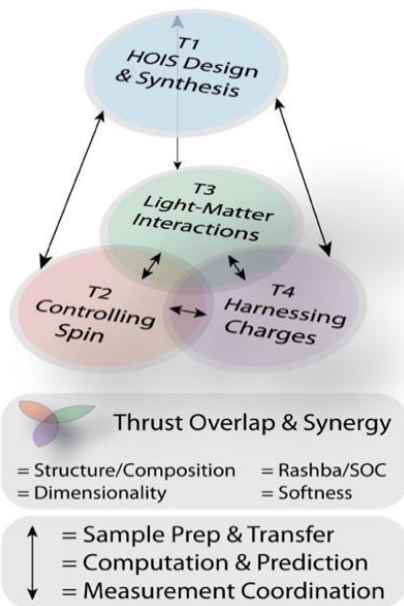


# Center for Hybrid Organic Inorganic Semiconductors for Energy (CHOISE)

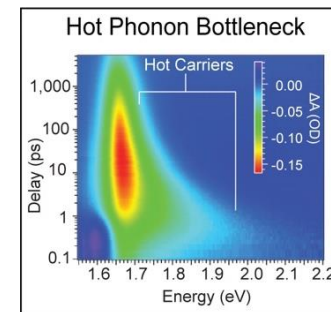
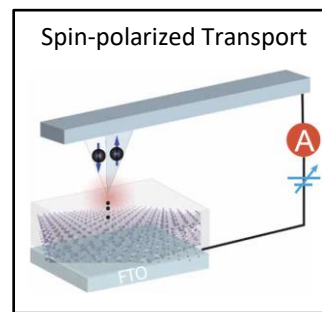
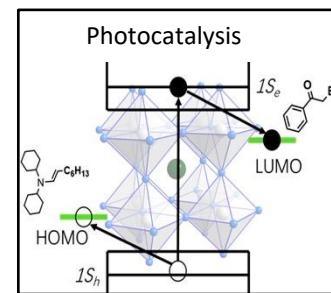
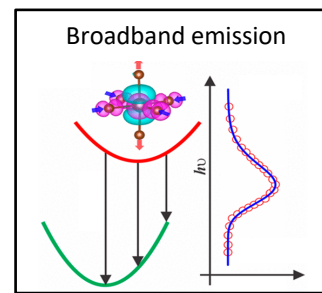
Matthew C. Beard (National Renewable Energy Laboratory); Class: 2018-2022

**MISSION:** To enable unprecedented synthetic control over the emergent phenomena of spin, charge, and light-matter interactions, in tailored organic-inorganic perovskite-inspired systems for energy science.

## CHOISE Plan:



## Example emergent phenomena



<https://www.choise-efrc.org/>

## RESEARCH PLAN

CHOISE will employ the full flexibility of organic and inorganic chemistry to design and demonstrate HOIS with unique and controllable spin, electronic, and optical properties. Key structural parameters will include metal selection, halide/pseudohalide choice, overall stoichiometry, and organic cation choice.