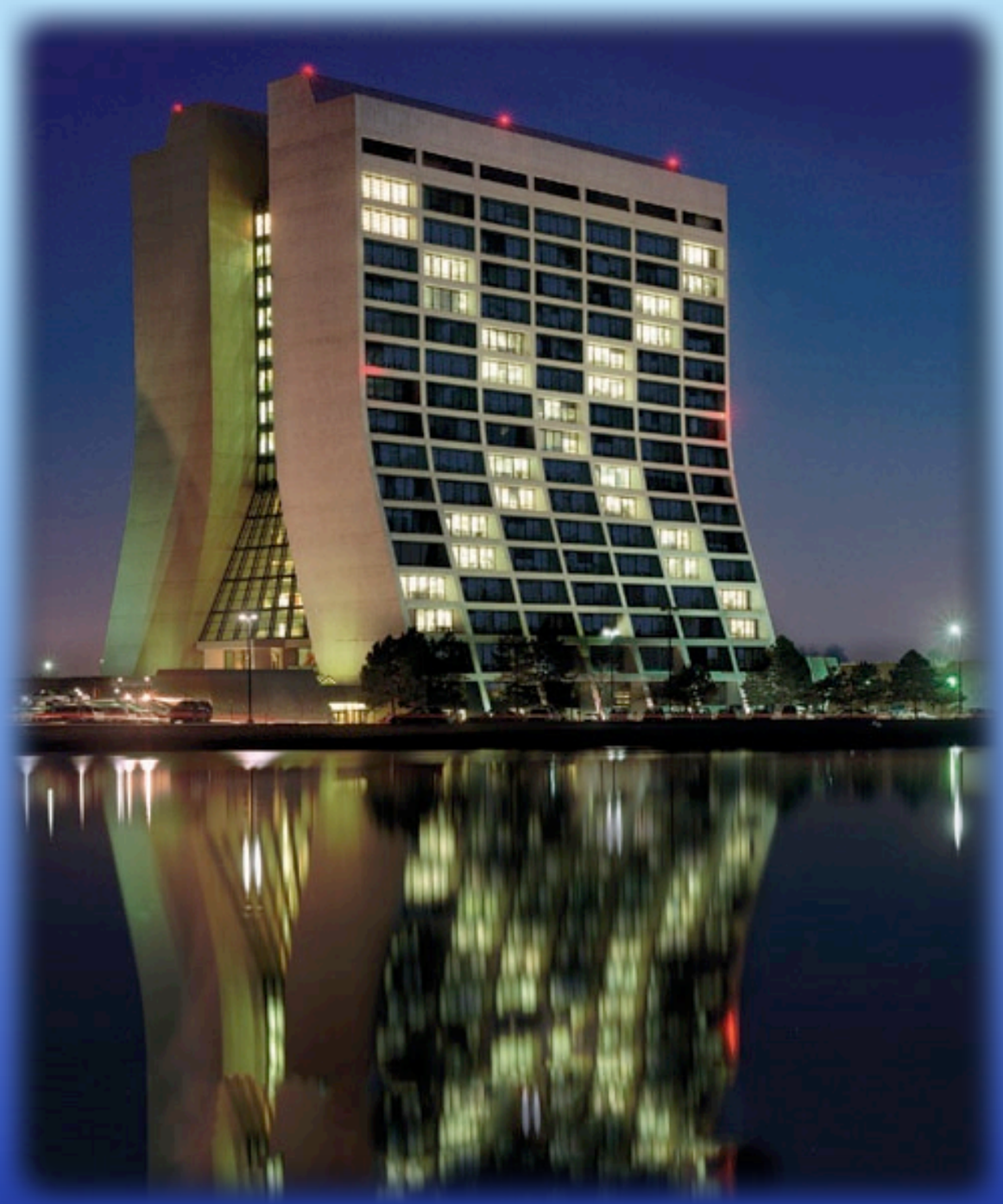
Lattice QCD for Project X



Outcome of Project X Physics study to produce document summarizing:

- ★ Physics opportunities at each stage of Project X
- ★ Roadmap for experimental & theoretical “R&D”

Target quantities

- What lattice-QCD calculations are needed to interpret experimental measurements of:
  - kaon decays
  - muon g-2
  - nucleon EDMs
  - neutron-antineutron oscillations
  - ...

- What internal consistency checks and/or ancillary calculations can be used to **test the lattice-QCD methodology**?

- ... to **assess the systematic uncertainty** associated with the methodology?

Precision goals

- How precisely do we need to calculate these quantities to meet the target experimental uncertainties?

- At what precision do you expect effects from E&M, isospin breaking, and dynamical charm to be important?

- Are there any **remaining theoretical issues or computational barriers** to reducing the uncertainties now? In the future?

- Given projected increases in computing resources, what do you expect the uncertainties to be in 2 years? 5 years? 10 years?

- Are there any **specific computing and/or storage needs** for your project?

Thank you!!!

- ... for your great talks
  and stimulating discussions.