





Al Project Introduction

Nhan Tran Oct 10, 2019



Overall goals

A formal group/home to coordinate AI activities and strategies across Fermilab

Guide Al research strategy at lab

- Develop strategic capabilities to enable science (P5/Snowmass)
- Connecting resources for given projects seek funding opportunities (+ outside DOE)

Support laboratory and user community for Al education/expertise

- Organize seminars and hands-on tutorials; help-lines; journal club; Slack management
- Computing infrastructure (on-prem/cloud)

Outward facing Fermilab presence

- Web presence, engagement materials
- Partnerships engage local businesses/startups, Chicago as an innovation hub, Chicago JTFI (Joint Task Force Initiative), (inter)nationally too



A brief history

- Started putting together the project ~5 weeks ago
- Hit the ground running
 - High level organization and structure including people, strategy, resources
 - Put out immediate fires
- Early urgent activities
 - DOE Innovation XLab Summit on AI (http://blogs.anl.gov/aixlab/)
 - Set up interfaces with industry through Lab Partnering Service https://www.labpartnering.org/p/choosing_a_lab
 - (in progress) Set up AI intern program
 - NITRD (response to National AI initiative on arXiv)
 - DARPA program manager visit talk (collect AI activities across lab)
 - Fast ML workshop summary to DOE
 - White paper for heterogeneous computing for industry partners
 - Meeting with Cerebras
 - Al materials for UChicago grad student event
 - Technology committee report





Fermilab Al strategy

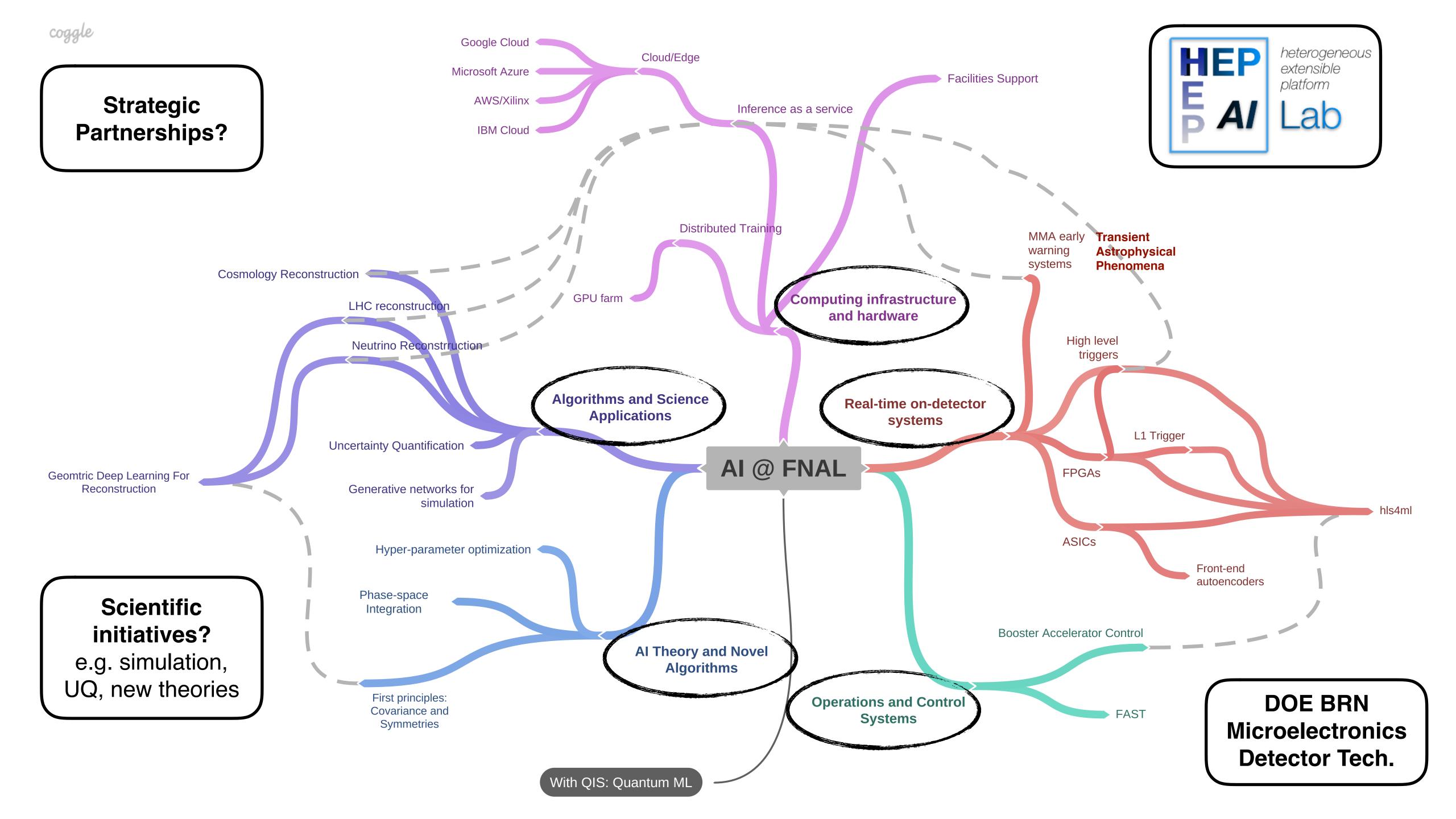
theory and new algorithms

computing hardware and infrastructure

algorithms and scientific applications

operations and control systems

real-time, on-detector systems





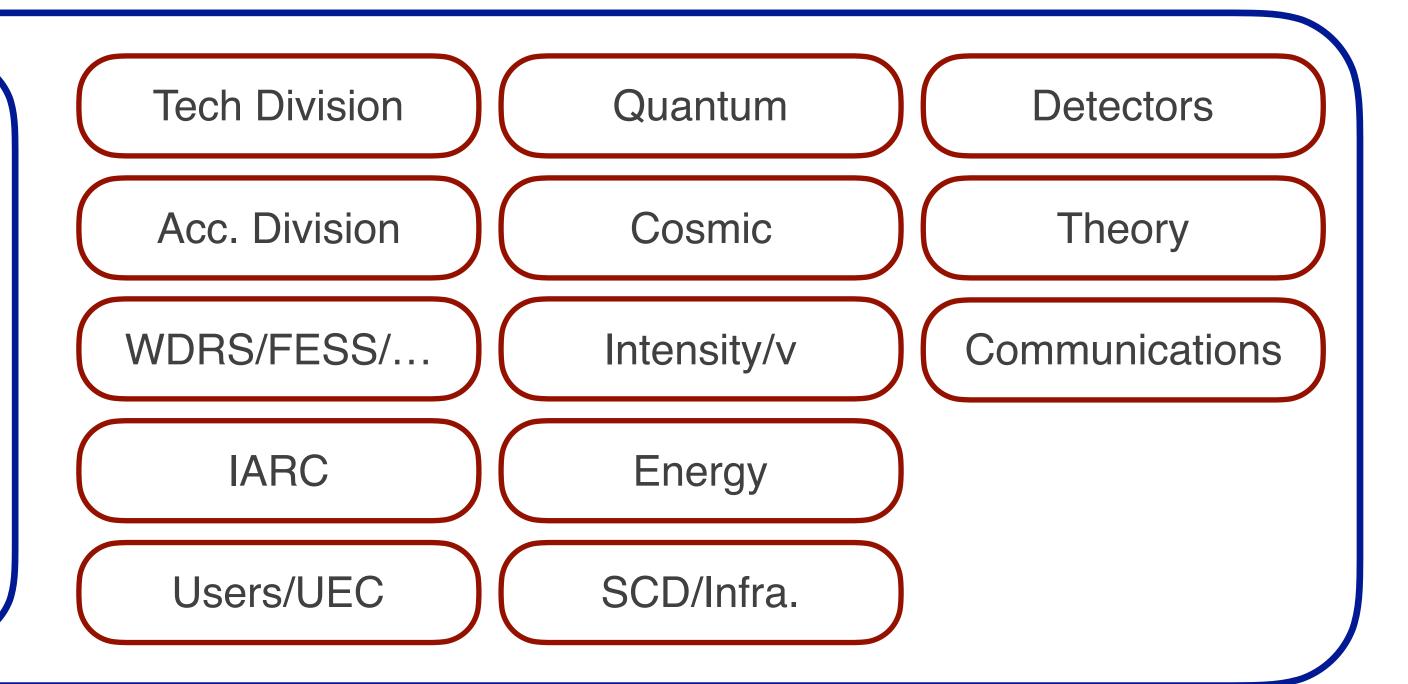
Who?

Project office

primary for day-to-day responsibilities

Nhan Tran (coordinator), Farah Fahim, Burt Holzman, Brian Nord, Gabe Perdue, Charles Thangaraj

ex-officio: Daniel Elvira



Liaisons: contacts to Al Project office, represent Al expertise across lab

- communicate interests and needs (presentations to office, funding, etc.)
- providing input to overall AI strategy
- providing materials, inputs for AI-related funding calls and communications.



Operational modes

Communication and task management

- Monthly overall project meeting
 - Weekly office meetings (indico)
- Internal group communication: Slack
 - fnalaiproject.slack.com
 - https://join.slack.com/t/fnalaiproject/shared_invite/
 enQtNzQxMzQ5MDg0MzkwLTlkYjE0MWMxM2EzMWJIM2ZiMDExN2MzYmRhNTFmMGU5MmE2NzNkMDk1YzAxZGE0OWY4ZTM5NmIyNDdjYWE5YmU
- Internal documentation and task management: Github
 - https://github.com/FNAL-AI-Project/AIProjectOrg



Extra