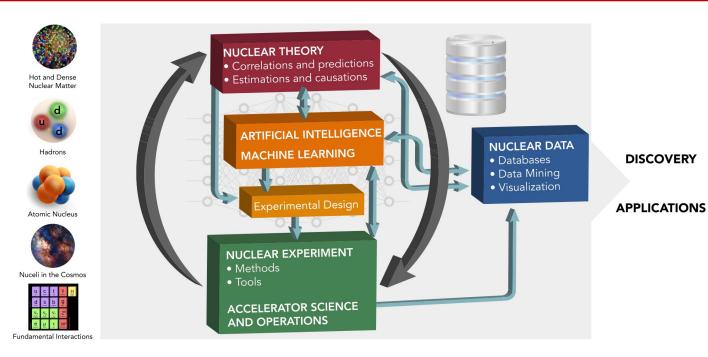
## AI/ML in Nuclear Physics



NP is a highly distributed scientific field, utilizing various data types across different scales, making it ideal for AI/ML applications.

## Tremendous interest and activity in AI/ML in NP:

- NP researchers already have the talent and many of the tools required for the AI/ML revolution.
- NP addresses challenges that are not addressed in current technologies.
- NP presents data sets that expose limitations of cutting edge methods.
- **Cross collaboration**: To solve the many complex programs in the field and facilitate discoveries strong collaborations between NP and data science would be beneficial for all parties.
- **Education** is key to increase the level of AI-literacy research programs and curricula in data science can help to attract students.

## AI4EIC

**AI/ML** already has an **important presence in EIC** with many prototypes, e.g., for detector optimization or reconstruction methods using ML.

- AI4EIC 2021 and 2022 workshops with 200+ participants each
- Summary: <u>Artificial Intelligence for the Electron-Ion Collider (AI4EIC)</u>

To explore and develop the full potential of AI/ML for ePIC, we need to move from prototyping to production and add promising AI/ML approaches into our workflows.





## **Al Town Hall Meeting**

The event aims to achieve two important goals:

- 1) Showcase AI/ML projects and inspire the work on AI/ML in ePIC.
- 2) Gain insight into AI/ML activities happening within ePIC.

