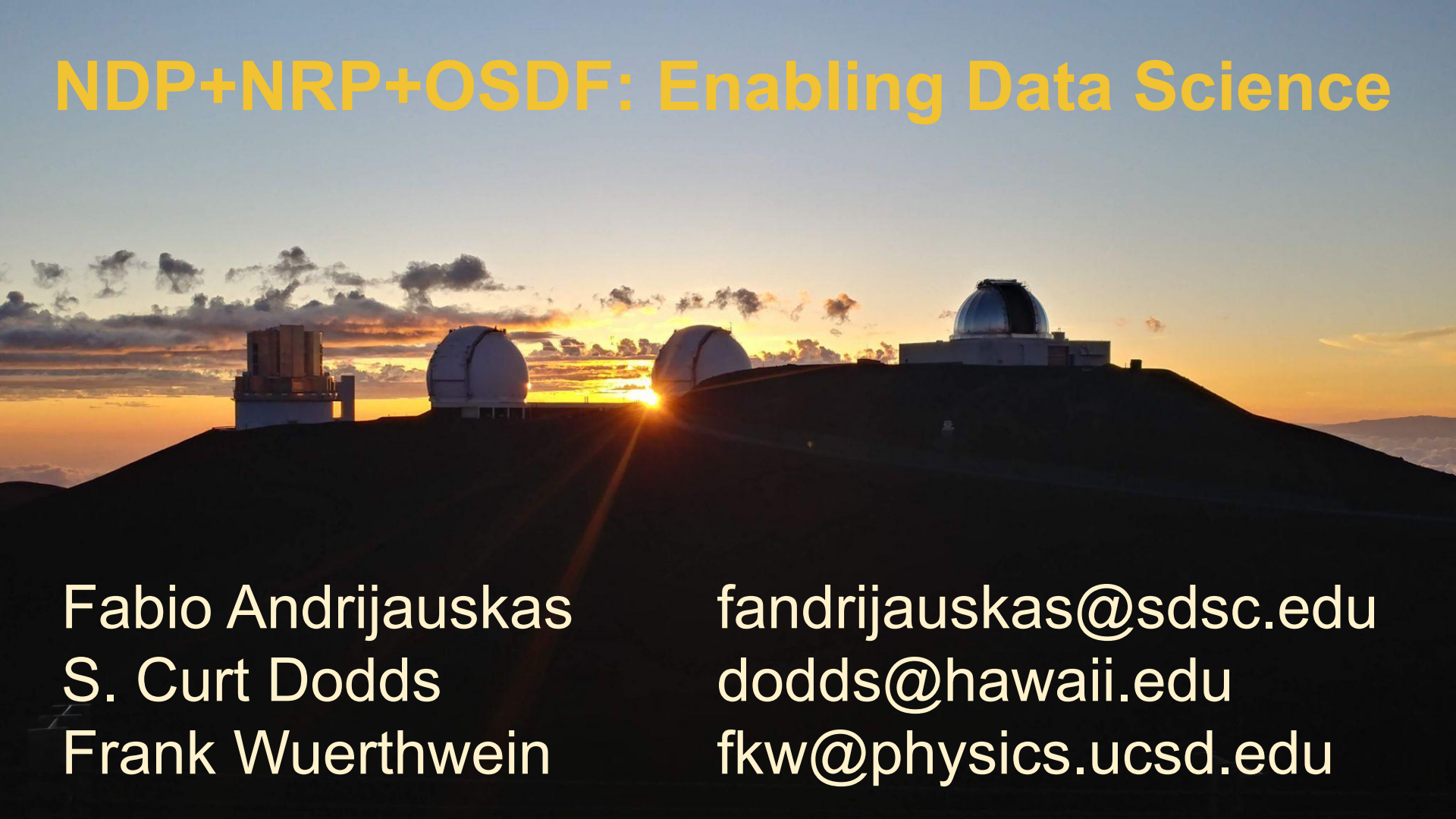
NDP+NRP+OSDF: Enabling Data Science



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ATLAS Detection Classification

Asteroid Terrestrial-impact Last Alert System (ATLAS)

Directory diff
*.bz2 (all detections from an image) This is all the detections (dclass features)
*.nnc (classifications and features using the NNC method.
*fits.fz - difference image (corresponding fits.fz from “red” dir with static sky subtracted)

Directory image
814 science images *.fits.fz

File attr.all
Columns are features produced by the dclass tool. They are inputs to the NNC classifier.
All detections in the 814 images found in the “red” dir.

File class.231105
~3M classified (by John) detections - detection ID is first part image (one of 814) and a unique detection number.
Gives the class for each detection assigned by dclass



NASA Planetary Defense

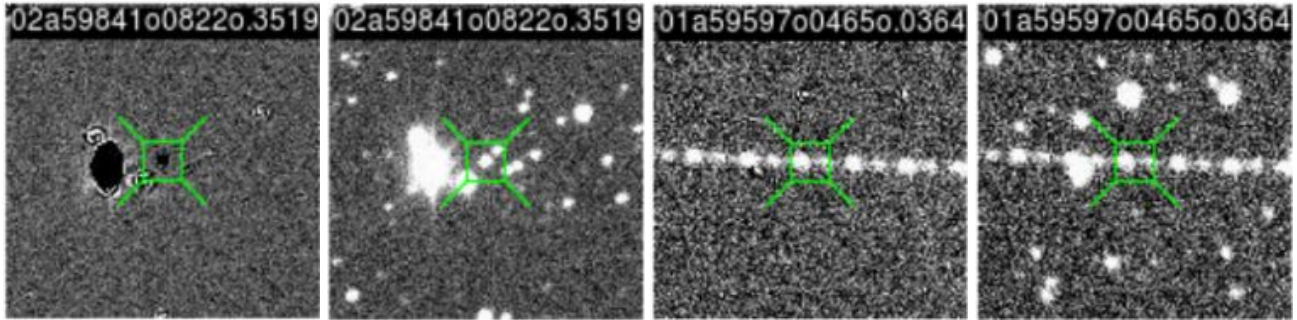
ATLAS Detection Classification

Asteroid Terrestrial-impact Last Alert System (ATLAS)

Directory diff
814 sky-subtracted full-frame difference images (76GB)

Directory image
814 full-frame reduced science images (86GB)

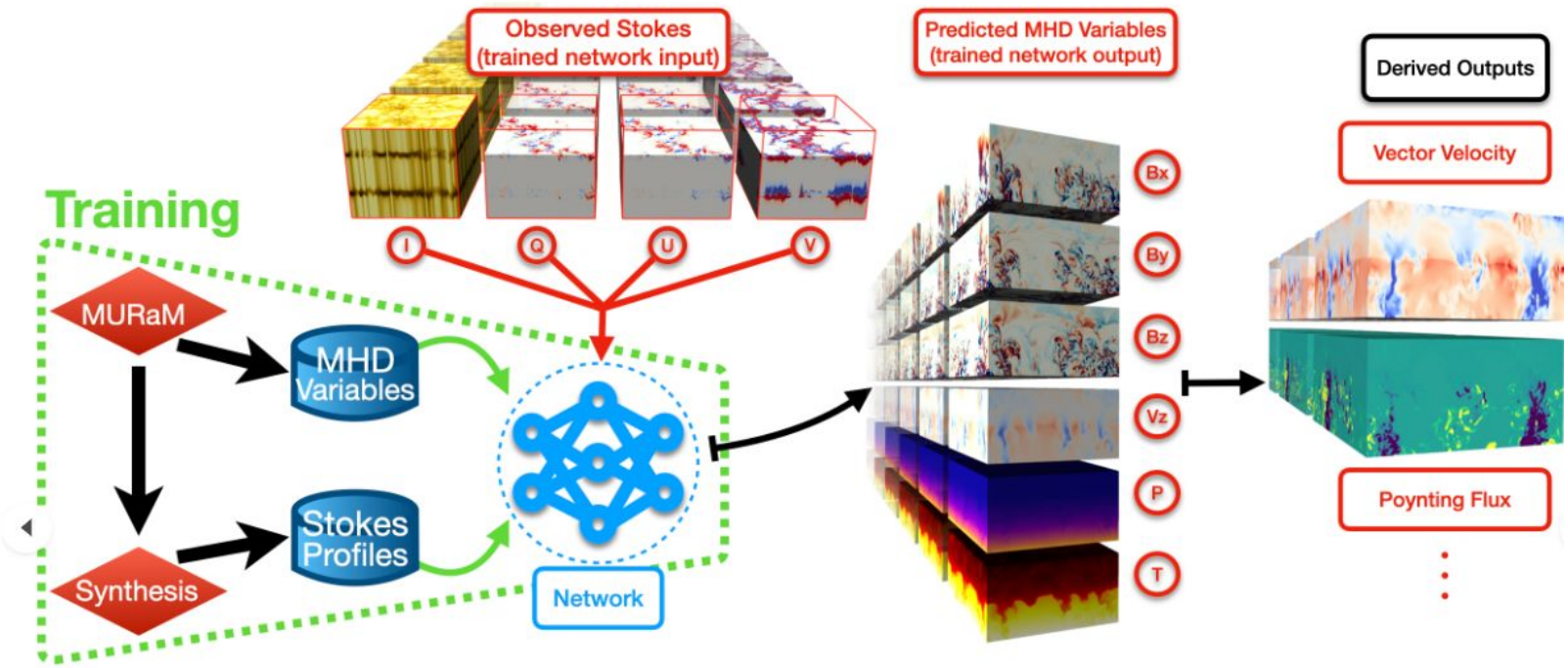
Use AI to auto-classify detections



NASA Planetary Defense

SPIN4D Spectropolarimetry

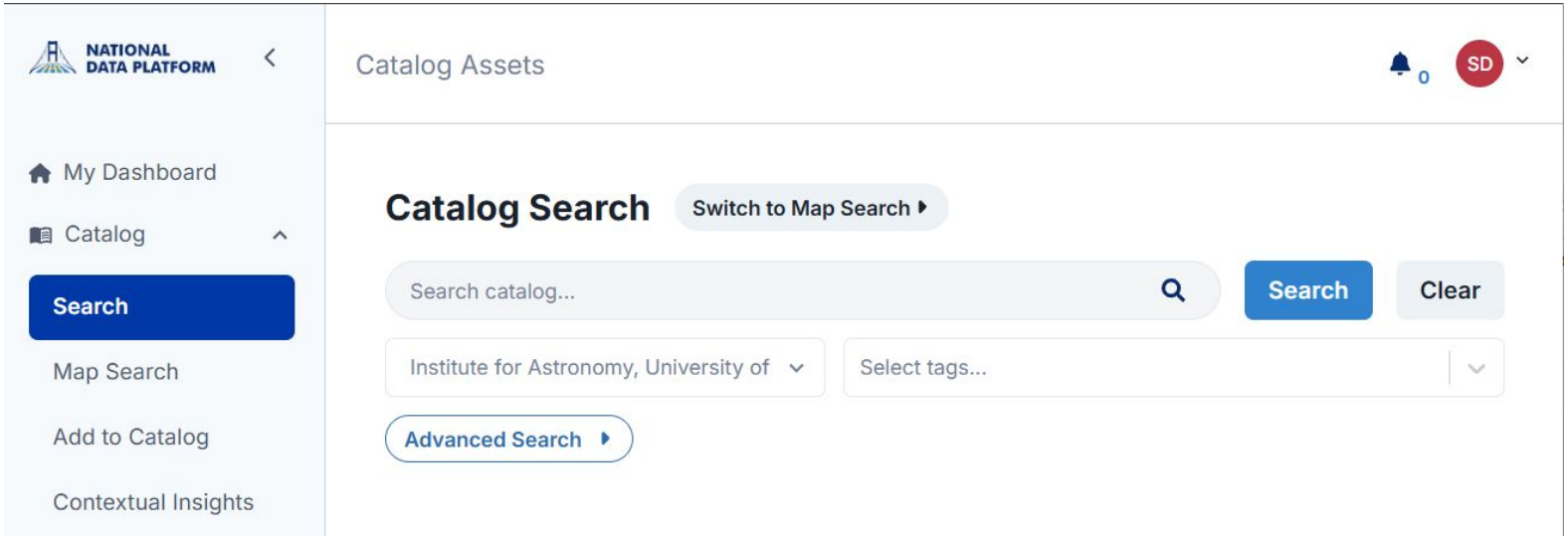
Spectropolarimetric Inversion in Four Dimensions with Deep Learning



SPIN4D Spectropolarimetry

Spectropolarimetric Inversion in Four Dimensions with Deep Learning

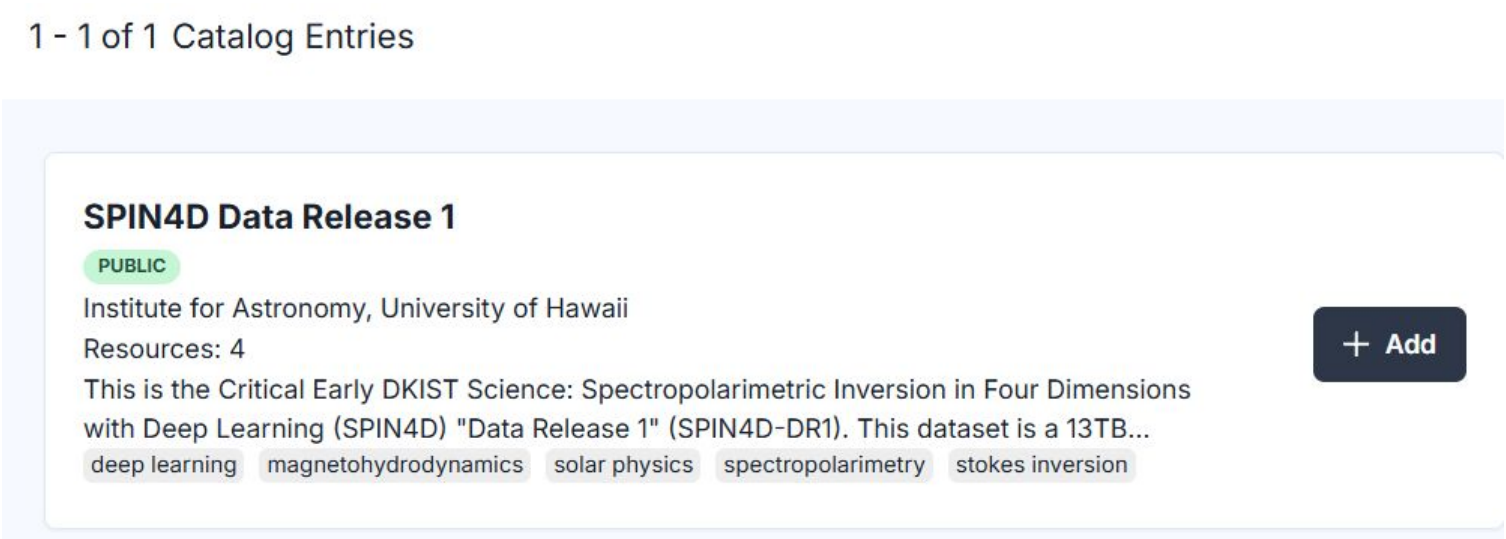
https://koastore-origin.nationalresearchplatform.org:8443/uhkoa/SPIN4D-DR1/



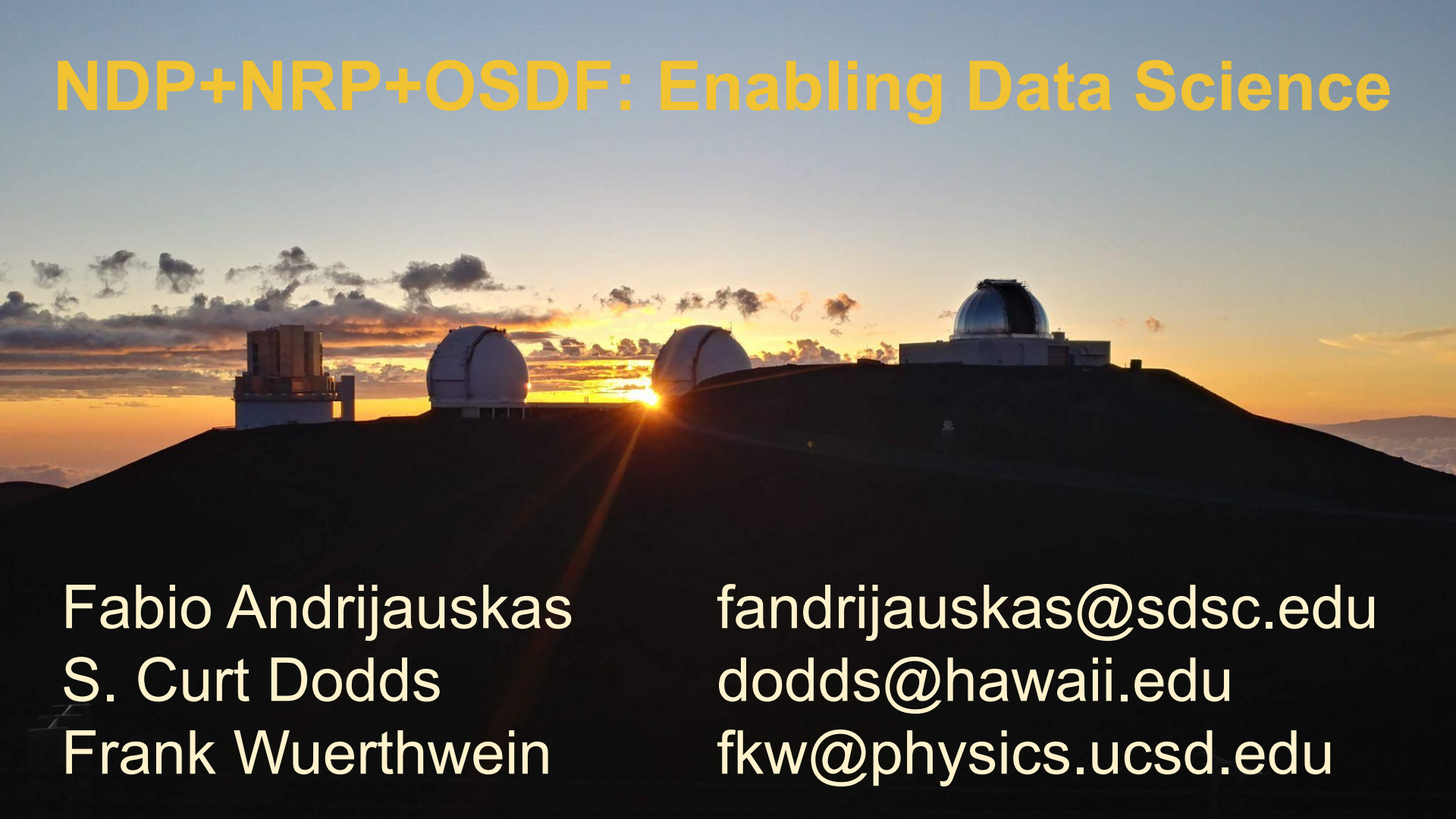
SPIN4D Spectropolarimetry

Spectropolarimetric Inversion in Four Dimensions with Deep Learning

https://koastore-origin.nationalresearchplatform.org:8443/uhkoa/SPIN4D-DR1/



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