Abstract Submitted
for the CUWIP21 Meeting of
The American Physical Society

Deep Learning Anomaly Detection[1] AFRA ASHRAF, Barnard College, JONATHAN FRAINE, Space Science Institute, JENNIFER MEDINA, HEATHER OLSZEWSKI, Space Telescope Science Institute — WFC3/IR data has shown a range of known anomalies that are consistently occurring and have known corrections using pipeline processing. The Quicklook project is a data management software for quick access to and inspection of Hubble Space Telescope Wide Field Camera 3 data. One of the features of the projects is anomaly detection, which allows Quicklook team members to visually inspect new observations and flag them for anomalies. We introduce a method for creating a deep learning algorithm to complement the existing Quicklook software by automatically detecting known and unknown WFC3 image anomalies, thus improving detection accuracy and reducing time spent on manual image inspection.

Afra Ashraf
Columbia University

Date submitted: 22 Dec 2020

Electronic form version 1.4