



# 2019 Meeting of the Division of Particles & Fields of the American Physical Society

## Monday, July 29, 2019

### Computing, Analysis Tools, & Data Handling: IRIS-HEP Tutorial - Shillman 425 (2:00 PM - 3:30 PM)

-Conveners: Jim Pivarski; Mike Hildreth; Bo Jayatilaka; Michael Kirby; Peter Onyisi; Nick Smith

| time    | [id] title   | presenter                    |
|---------|--|------------------------------|
| 2:00 PM | M81] IRIS-HEP Tutorial: Fast columnar data analysis with data science tools (Part 1) | PIVARSKI, Jim<br>SMITH, Nick |

### Computing, Analysis Tools, & Data Handling: IRIS-HEP Tutorial - Shillman 425 (4:00 PM - 6:00 PM)

-Conveners: Michael Kirby; Nick Smith; Peter Onyisi; Mike Hildreth; Jim Pivarski; Bo Jayatilaka

| time    | [id] title   | presenter                    |
|---------|--|------------------------------|
| 4:00 PM | M82] IRIS-HEP Tutorial: Fast columnar data analysis with data science tools (Part 2) | PIVARSKI, Jim<br>SMITH, Nick |

## Tuesday, July 30, 2019

### Computing, Analysis Tools, & Data Handling - Shillman 425 (2:00 PM - 3:30 PM)

-Conveners: Michael Kirby; Mike Hildreth; Bo Jayatilaka; Peter Onyisi

| time    | [id] title   | presenter                |
|---------|--|--------------------------|
| 2:00 PM | [10] COFFEA - Columnar Object Framework For Effective Analysis   | SMITH, Nick              |
| 2:20 PM | [205] Combined Neyman-Pearson Chi-square: an improved approximation to the Poisson-likelihood chi-square             | Dr Ji, Xiangpan          |
| 2:40 PM | [4] pyhf: a pure Python statistical fitting library from the high energy physics community with tensors and autograd | STARK, Giordon Holtsberg |
| 3:00 PM | [96] Extending RECAST for truth-level analysis reinterpretations   | SCHUY, Alexander Joseph  |

# Wednesday, July 31, 2019

## Computing, Analysis Tools, & Data Handling - Shillman 425 (2:00 PM - 3:30 PM)

-Conveners: Mike Hildreth; Michael Kirby; Bo Jayatilaka; Peter Onyisi

| time   | [id] title   | presenter       |
|--------|--|-----------------|
| 2:00 P | M107] ACTS: a common track reconstruction software   | Dr AI, Xiaocong |
| 2:20 P | M109] Deep Learning for Event Reconstruction at DUNE   | BIAN, Jianming  |
| 2:40 P | M135] End-to-end particle and event identification at the Large Hadron Collider with CMS Open Data | USAI, Emanuele  |
| 3:00 P | M164] HEP.TrkX Charged Particle Tracking using Graph Neural Networks                               | JU, Xiangyang   |

## Computing, Analysis Tools, & Data Handling - Shillman 425 (4:00 PM - 6:00 PM)

-Conveners: Michael Kirby; Bo Jayatilaka; Peter Onyisi; Mike Hildreth

| time   | [id] title  | presenter   |
|--------|---|---|
| 4:00 P | M124] Recent progress on Wire-Cell 3D imaging and tracking for LArTPC   | Dr WEI, Hanyu                                     |
| 4:20 P | M147] Simulating light in large volume detectors using Metropolis Light Transport   | COLLIN, Gabriel                                   |
| 4:40 P | M170] Supervised learning of Photo-Electron counting in scintillator-based dark matter experiments                          | Dr BHATTACHARYA, Kolahal<br>BHATTACHARYA, Kolahal |
| 5:00 P | M118] Determination of CMS Barrel Test Beam Calorimeter Reponse Correction to Pion Beams with Convolutional Neural Networks | LI, Daniel  |
| 5:20 P | M155] Fast detector modeling using machine learning algorithms  | HOPKINS, Walter                                   |
| 5:40 P | M110] Electron Neutrino Energy Reconstruction with Convolutional Neural Network   | YU, Shiqi   |

# Thursday, August 1, 2019

## Computing, Analysis Tools, & Data Handling - Shillman 425 (2:00 PM - 3:30 PM)

-Conveners: Peter Onyisi; Bo Jayatilaka; Michael Kirby; Mike Hildreth

| time    | [id] title   | presenter                 |
|---------|--|---------------------------|
| 2:00 PM | [M114] Tools for Trigger Rate Monitoring at CMS  | MOHRMAN, Kelci            |
| 2:20 PM | [M124] The migration of the ATLAS electron photon trigger software to the AthenaMT   | Mr BAKSHI GUPTA, Debottam |
| 2:40 PM | [M11] Application of Quantum Machine Learning to High Energy Physics Analysis at LHC using IBM Quantum Computer Simulators and IBM Quantum Computer Hardware | WANG, Alex Zeng           |
| 3:00 PM | [M169] Noise Filtering and Signal Processing in the ProtoDUNE-SP LArTPC  | SARASTY SEGURA, Carlos    |

## Computing, Analysis Tools, & Data Handling - Shillman 425 (4:00 PM - 6:00 PM)

-Conveners: Michael Kirby; Mike Hildreth; Peter Onyisi; Bo Jayatilaka

| time    | [id] title   | presenter  |
|---------|--|--|
| 4:00 PM | [M145] Computing and Machine Learning for Detector R&D (Summary of CPAD2018)   | GLEYZER, Sergei                                  |
| 4:20 PM | [M137] Software Upgrades for the HL-LHC and HEP in the 2020s   | ELMER, Peter                                     |
| 4:40 PM | [M119] Evolving CMS offline computing towards LHC Run3 and HL-LHC  | LANGE, David                                     |
| 5:00 PM | [M139] Large-scale HPC deployment of Scalable CyberInfrastructure for Artificial Intelligence and Likelihood Free Inference (SCAILFIN) | HILDRETH, Mike<br>HURTADO ANAMPA, Kenyi<br>Paolo |