## Learn the Universe -- an ML X Cosmology Workshop

## Wednesday, August 25, 2021

Structured Section: Robust ML for science - 2nd Floor, IDA (2:00 PM - 3:45 PM)

| time    | [id] title  | presenter |
|---------|---|-----------|
| 2:00 PM | [15] Biwei Dai: Translation and Rotation Equivariant Normalizing Flow (TRENF) for Optimal Cosmological Analysis |           |
| 2:15 PM | [16] David Yallup : Principled Bayesian Neural Networks   |           |
| 2:30 PM | [17] Miles Cranmer: Histogram Pooling Operators for Interpretable Deep<br>Learning in Cosmology                 |           |
| 2:45 PM | [18] Anima Anandkumar: Al4 Science A revolution in the making   |           |
| 3:00 PM | [35] Michael Eickenberg: Wavelet Modulus Integrals for Parameter Estimation                                     |           |

## Thursday, August 26, 2021

## Structured Section: Robust ML for science - 2nd Floor, IDA (2:00 PM - 3:45 PM)

| time    | [id] title  | presenter |
|---------|---|-----------|
| 2:00 PM | [30] Anima Anandkumar, " Al4 Science A revolution in the making "                               |           |
| 2:15 PM | [29] Greg Bryan, Introducing the Simons Collaboration "Learning the Universe"                   |           |
| 2:30 PM | [33] Rachel Somerville: New methods to model galaxy formation so that we can Learn the Universe |           |
| 2:45 PM | [31] Ana Maria Delgado: Modeling Galaxy-Halo connection with Machine<br>Learning                |           |
| 3:00 PM | [32] Sultan Hassan: HIFlow: Fast Emulator of HI maps using Normalizing Flow                     |           |