# Third Machine Learning in High Energy Physics Summer School 2017

## Monday, 17 July 2017

**Seminars: Day 1 Seminars - Reading University (11:10 - 12:40)**

  **-Conveners: Alexander Panin**

| time | [id] title | presenter |
|---|---|---|
| 11:10 | [29] Seminar 1. Python data crunching: numpy, root_numpy, pandas (very short), matplotlib. | PANIN, Alexander |

**Seminars: Day 1 Seminars - Reading University (15:50 - 17:20)**

  **-Conveners: Alexander Panin**

| time | [id] title | presenter |
|---|---|---|
| 15:50 | [31] Seminar 2. Matplotlib, Trees & Linear Models in SciKit Learn. Overfitting checks & prevention. | PANIN, Alexander |

# Tuesday, 18 July 2017

**Seminars: Day 2 Seminars - Reading University (11:00 - 12:30)**

| time | [id] title | presenter |
|------|------------|-----------|
| 11:00 | [32] Seminar 3. Ensembling: Adaboost, Stacking. Gradient Boosting. | |

**Seminars: Day 2 seminrs - Reading University (15:30 - 17:00)**

| time | [id] title | presenter |
|------|------------|-----------|
| 15:30 | [13] Seminar 4. Optimization of hyper-parameters, applications to challenge. | |

# Thursday, 20 July 2017

**Seminars: Day 4 Seminars - Reading University (11:00 - 12:30)**

| time | [id] title | presenter |
|------|-----------|-----------|
| 11:00 | [37] Seminar 5. Computing gradient by hand. Tensorflow. Keras. Remote machine setup. Getting familiar with GPU. | |

**Seminars: Day 4 Seminars - Reading University (15:30 - 17:00)**

| time | [id] title | presenter |
|------|-----------|-----------|
| 15:30 | [46] Seminar 6. Image recognition using convolutional neural networks. | |

# Friday, 21 July 2017

**<u>Seminars: Day 5 Seminars</u> - Reading University (15:30 - 17:00)**

| time | [id] title | presenter |
|------|-----------|-----------|
| 15:30 | [39] Seminar 7. PCA, Autoencoders (faces) | |

# Saturday, 22 July 2017

**Seminars: Day 6 Seminars** **- Reading University (11:00 - 12:30)**

| time | [id] title | presenter |
|------|------------|-----------|
| 11:00 | [41] Seminar 8 Generative Adversarial Networks (physics) | |