

## Astroinformatics 2019: tentative agenda

### Monday, June 24

### Data Science and X-informatics

8:00	9:00		Registration, breakfast
9:00	9:15	Co-Chairs	Welcome + logistics
9:15	10:00	Kiri Wagstaff (TBC)	Tutorial: Machine Learning basics
10:00	10:30		Coffee break and posters
10:30	11:15	Dima Duev (TBC)	Tutorial: Deep Learning
11:15	12:00	Matthew Graham	Tutorial: Time series analysis
12:00	1:15		Lunch
1:15	2:00	Anima Anandkumar	Opening Keynote: Artificial Intelligence
2:00	2:30	Tapio Schneider	Clouds, Climate, And Data-Informed Earth System Modeling
2:30	3:00	Lior Pachter	High-Dimensional Data Analysis In Astronomy And Biology
3:00	3:30		Coffee break and posters
3:30	4:00	Dan Crichton	Enabling Methodology Transfer for Scientific Analysis from Space Science to Biomedicine
4:00	4:15	TBD	Contributed talk
4:15	4:30	TBD	Contributed talk
4:30	5:00	Discussion	Astroinformatics in a broader context of data science, and methodology sharing
5:00	6:00		Wine & Cheese, posters (Cahill lobby)
6:00	8:00		Conference dinner (Cahill patio)

### Tuesday, June 25

### Astroinformatics Methods and Applications

8:00	9:00		Registration, breakfast
9:00	9:30	Ajit Kembhavi	Applications of Deep Learning in Astronomy and Electron Microscopy
9:30	10:00	Ashish Mahabal	Deep Learning for classification in astronomy and biomedicine
10:00	10:15	TBD	Contributed talk
10:15	10:30	TBD	Contributed talk

10:30	11:00		Coffee break and posters
11:00	11:30	Kai Polsterer	From Photometric Redshift to Improved Weather Forecasts: An Interdisciplinary View of Machine Learning in Astronomy
11:30	11:45	TBD	Contributed talk
11:45	12:00	TBD	Contributed talk
12:00	12:30	Discussion	Interesting technology trends
12:30	1:30		Lunch
1:30	2:00	Dalya Baron	Finding Complex Structures In Complex Datasets
2:00	2:30	Pavlos Protopapas	Physical Symmetries Embedded in Neural Networks
2:30	2:45	TBD	Contributed talk
2:45	3:00	TBD	Contributed talk
3:00	3:30		Coffee break and posters
3:30	4:00	Alberto Krone-Martins	Strongly Lensed Quasars: Where Entropy Meets Astrometry, Wavelets And Machine Learning
4:00	4:15	TBD	Contributed talk
4:15	4:30	TBD	Contributed talk
4:30	5:00	Discussion	Developing and sharing Astroinformatics curricula
5:00	6:00		Posters and informal discussions

### Wednesday, June 26

### Astroinformatics for Large Projects

8:00	9:00		Registration, breakfast
9:00	9:30	Rich Doyle	JPL, Autonomy, and Data Science
9:30	9:45	TBD Swinburne	Contributed talk
9:45	10:00	TBD Swinburne	Contributed talk
11:30	12:00	Andy Connolly	Looking Below the Noise - Asteroid Hunting With the LSST
10:30	11:00		Coffee break and posters
11:00	11:30	Bruce Bassett	Scaling Towards Exabyte Science With The SKA
11:30	11:45	TBD	Contributed talk
11:45	12:00	TBD	Contributed talk
12:00	12:30	Discussion	Astroinformatics and big projects: needs and drivers

12:30 1:30		Lunch
1:30 2:00	Matthew Graham	Can We Predict the Future of Aperiodic Sources?
2:00 2:30	Francisco Forster	The Universe in a Stream: Building the ALeRCE Broker
2:30 2:45	TBD	Contributed talk on brokers
2:45 3:00	TBD	Contributed talk on brokers
3:00 3:30		Coffee break and posters
3:30 4:00	Jess McIver	Noise Mitigation Methods For Gravitational Wave Detectors
4:00 4:30	Kiri Wagstaff	Anomaly Detection And Explanation In Galaxy Observations From The Dark Energy Survey
4:30 5:00	Discussion	Astroinformatics for the multi-messenger astronomy
5:00 6:00		Posters and informal discussions

#### Thursday, June 27

#### Astroinformatics, Community, and the Hackaton

8:00 9:00		Registration, breakfast
9:00 9:45	John Preskill	Closing Keynote: Quantum Computing: Reality vs. Hype
9:45 10:00	TBD	Contributed talk
10:00 10:15	TBD	Contributed talk
10:15 10:30	TBD	Contributed talk
10:30 11:00		Coffee break and posters
11:00 11:30	Discussion	Astroinformatics Community and Career Development
11:30 11:45	TBD	Contributed talk
11:45 12:00	TBD	Contributed talk
12:00 12:30		Conference wrap-up and a preparation for the hackaton
12:30 1:30		Lunch
1:30 3:00		Hackaton, part 1
3:00 3:30		Coffee break and discussions between different teams
3:30 5:00		Hackaton, part 2

**Friday, June 28****The Hackaton wrap-up**

9:00 10:30

Hackaton, part 3

10:30 11:00

Coffee break and discussions between different teams

11:00 12:30

Hackaton, part 4

12:30 1:30

Lunch

1:30 ?

Hackaton wrap-up, plans for the future

**Notes:**

Invited talks are intended to be 25+5 min, contributed talks 12+3 min

The ideas for the Hackaton to be developed by the participants during the first 3 days of the conference

Coffee breaks in the Cahill lobby and back patio. Lunches on the back patio.