

MLHEP 2017

highlights and closing remarks



Yandex



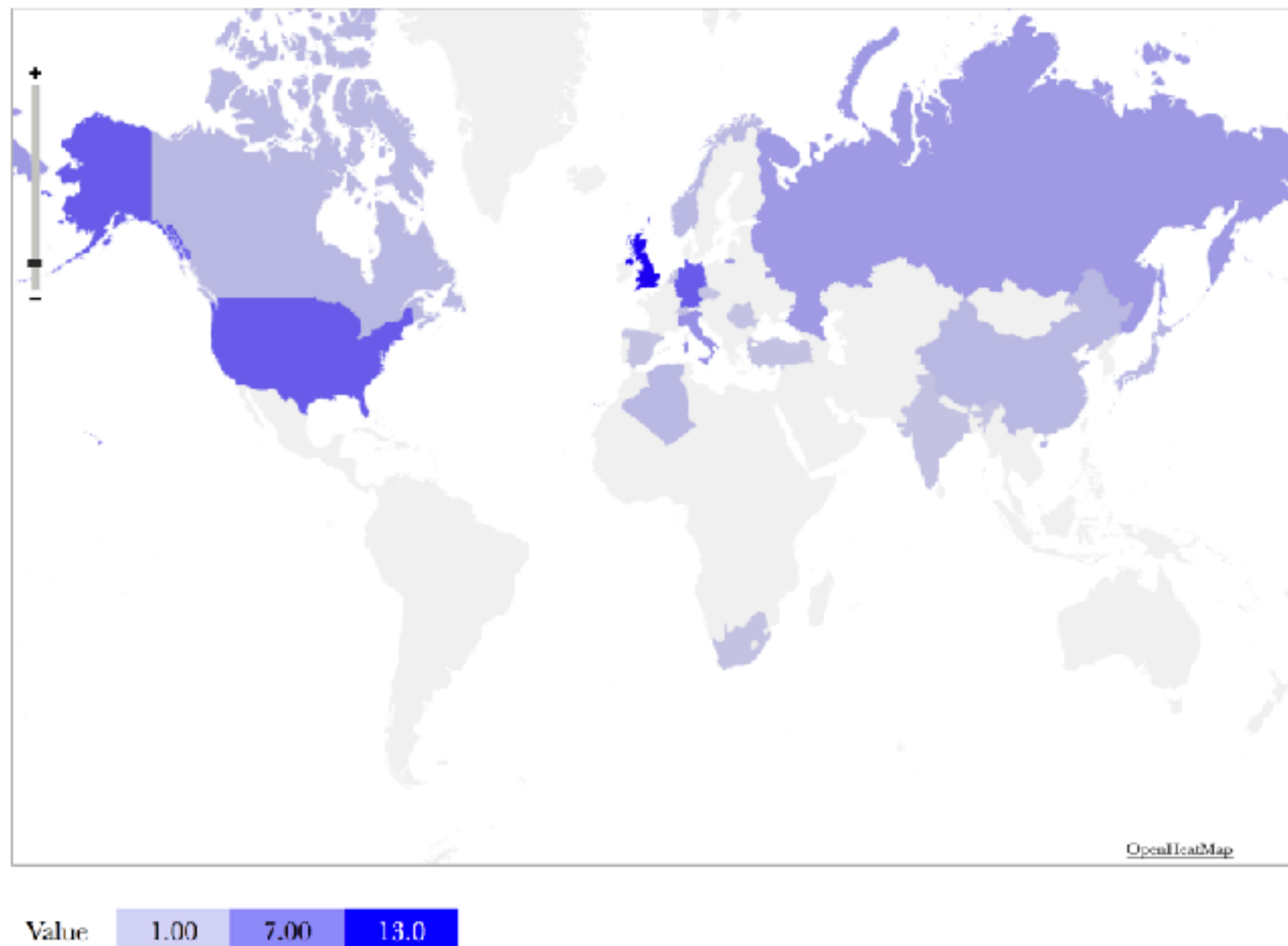
Imperial College
London

Key Topics

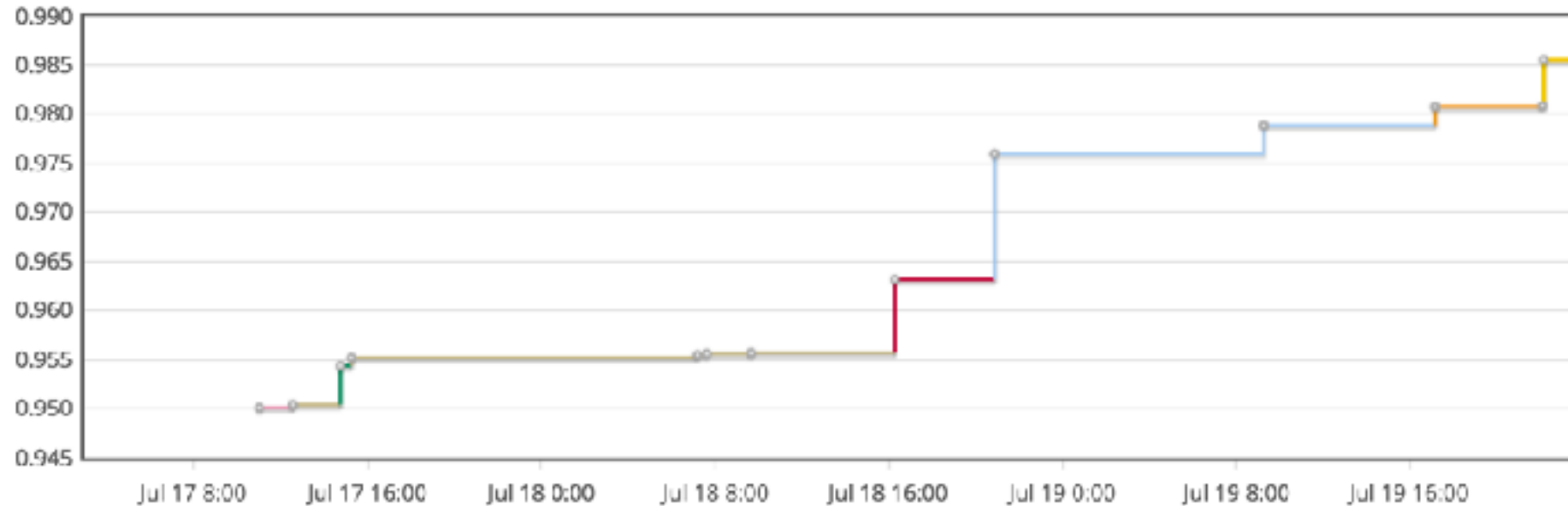
- Linear models, Ensembles, Gradient Boosting
 - taming categorical features
- Hyperparameter optimization (Gaussian process, et al), to brew a beer
- Deep Learning, Tensorflow, Keras
 - vanishing gradient
 - exploding gradient
- Convolutional Networks, style transfer
- Dimensionality reduction, embedding, autoencoders
 - how to call Justin Bieber, and
 - turn anything into a suit
- GANs
 - tame loss functions, horses and zebras
- Recurrent Neural Network
 - name your next discovered particle

Some Stats

- 60 participants from 18 countries, 47 universities
- 60+ academic hours:
 - ~15 lectures
 - 10+ seminars
 - 6 invited talks
- 2 competitions



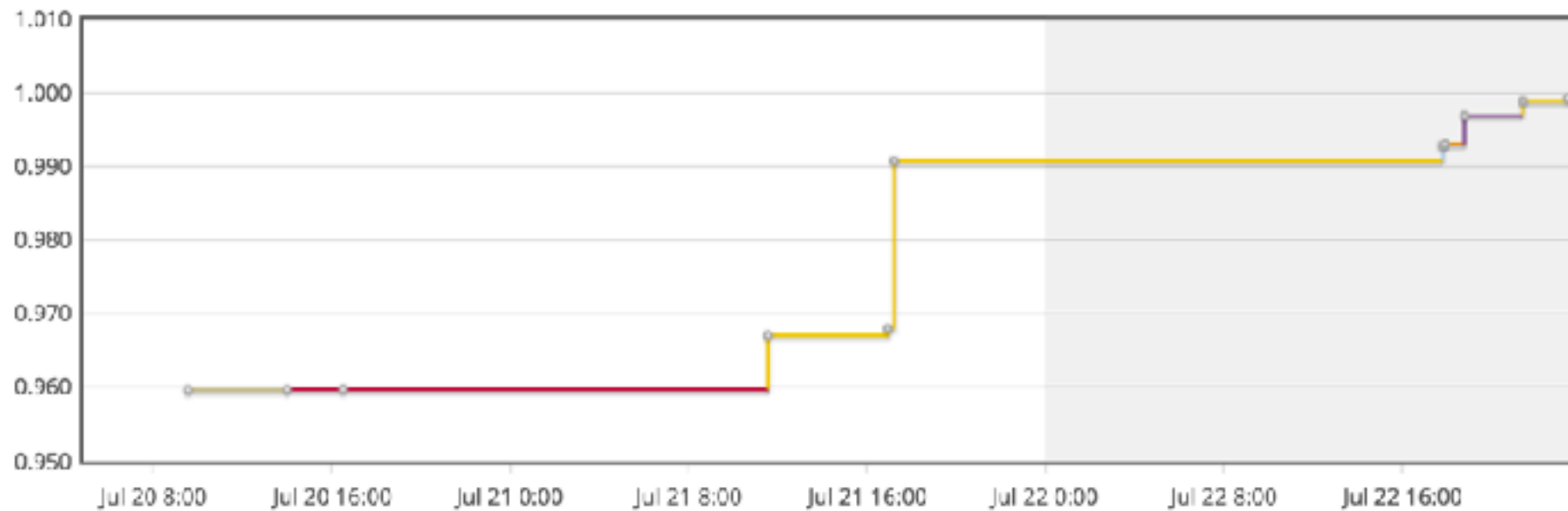
Dark Matter Search-1



69 players
13 external
~600 submissions

#	Δrank	Team Name	Score ?	Entries	Last Submission UTC (Best – Last Submission)
1	—	Benda Xu	0.98556	3	Wed, 19 Jul 2017 22:09:06
2	—	Miha Zgubic	0.98122	23	Wed, 19 Jul 2017 22:29:42
3	—	Konstantin	0.98099	4	Wed, 19 Jul 2017 23:33:12
4	↑1	Georgy Chebanov	0.97063	5	Wed, 19 Jul 2017 02:52:52
5	↑1	Dzianis Sivets	0.96933	7	Wed, 19 Jul 2017 16:54:05 (-3.9h)

Dark Matter Search-2



32 teams
34 players
9 external
193 submissions

#	Rank	Team Name	Score ?	Entries	Last Submission UTC (Best - Last Submission)
1	—	denaas	0.99927	9	Sat, 22 Jul 2017 23:26:47
2	—	Kangaroo	0.99720	5	Sat, 22 Jul 2017 23:51:31 (-0.7h)
3	—	Konstantin	0.99695	3	Sat, 22 Jul 2017 22:52:23
4	—	MZ	0.99356	8	Sat, 22 Jul 2017 23:03:55 (-0.1h)
		<ul style="list-style-type: none">Miha ZgubicAlex Mason			
5	—	JonahPhillion	0.98836	14	Sat, 22 Jul 2017 21:05:33 (-1.4h)
6	—	FraP	0.98282	7	Sat, 22 Jul 2017 23:38:37
7	—	Taka	0.97923	15	Sat, 22 Jul 2017 21:06:33 (-1.5h)
8	—	byzhang	0.97847	2	Sat, 22 Jul 2017 23:07:23

Future matters

- Data Science competitions:
 - November
 - Your problem?
- MLHEP 2018
 - Venue?
 - <https://goo.gl/forms/GMmQSFJ07j7iTtE12>

Useful references

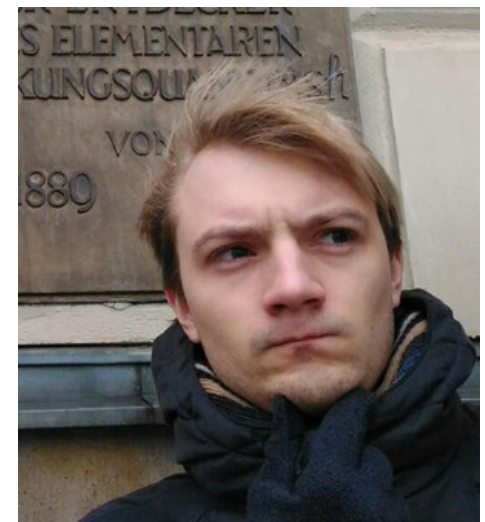
- <https://bit.ly/mlhep2017>
- <https://github.com/yandexdataschool/mlhep2017/>
- #MLHEP
- <https://catboost.yandex>
- <https://cs.hse.ru/lambda/> (PhD studies on topics of Machine Learning and Natural Sciences)

Thanks to sponsors



Thanks to lecturers/ seminarists

- Dr. Alexey Artemov,
Yandex, HSE
- Alexander Panin
YSDA, Yandex
- Maxim Borisyak
Yandex, HSE
- Nikita Kazeev
Yandex, YSDA, HSE



Thanks to local organisers



**Imperial College
London**

Thanks for All the Fish

... but let's keep in touch:

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<https://goo.gl/forms/GMmQSFJ07j7iTtE12>



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