

1 ROOM

2 ROOM

Talk's complexity:



Introduction to technology



For practicing engineers



Hardcore



Academic talk

9:00 – 18:00

Registration

10:00 – 10:30

Conference opening

10:30 – 11:30



The Azul Hardware Transactional Memory experience

EN

[Cliff Click, CRATUS](#)

[#hardware](#) [#cpu](#) [#failure-story](#)

11:30 – 12:00

Break

12:00 – 13:00



Weak memory concurrency in C/C++11

EN

[Ori Lahav, Tel Aviv University](#)

[#relaxed-access](#) [#oota](#) [#c11](#)
[#weak-memory](#)



RU

Not all ML algorithms go to distributed heaven

[Alexey Zinoviev, Apache Ignite Committer](#)

[#ml](#) [#algorithm](#)

13:00 – 14:00

Lunch

14:00 – 15:00



Liberating distributed consensus

EN

[Heidi Howard, University of Cambridge](#)

[#paxos](#) [#consensus](#) [#linearizability](#)
[#fault-tolerance](#) [#raft](#)



EN

Go scheduler: Implementing language with lightweight concurrency

[Dmitry Vyukov, Google](#)

[#scheduler](#) [#scalability](#) [#coroutine](#)
[#fairness](#) [#preemption](#) [#split-stack](#)
[#golang](#)

15:00 – 15:30

Break

15:30 – 16:30



Reduce your storage costs with Transient Replication and Cheap Quorums

EN

[Alex Petrov](#)

[#replication](#) [#quorum](#) [#cassandra](#)
[#database](#)



EN

Accelerating distributed graph analysis by means of probabilistic sketches (and not only them)

[Dmitry Bugaychenko, Odnoklassniki](#)

[#algorithm](#) [#graphs](#) [#heuristics](#)

16:30 – 17:00

Break

17:00 – 18:00



Structured concurrency

EN

[Roman Elizarov, JetBrains](#)

[#kotlin](#) [#coroutines](#)
[#asynchronous](#)



RU

Yandex Database — how we guarantee fault tolerance

[Vladislav Kuznecov, Yandex](#)

[#distributed-storage](#)
[#replicated-state-machine](#) [#replication](#)
[#availability](#) [#fault-tolerance](#)

18:00 – 18:30

Break

18:30 – 19:30



Blockchains and the future of distributed computing

EN

[Maurice Herlihy, Brown University Computer Science Dept](#)

19:30

Party

1 ROOM

2 ROOM

Talk's complexity:



Introduction to technology



For practicing engineers




Hardcore



Academic talk

10:00 – 18:00 Registration

10:30 – 11:30  Syncing data across user devices for distributed collaboration

EN

[Martin Kleppmann, University of Cambridge](#)

#crdt #sync-free #replication #decentralization

11:30 – 12:00 Break

12:00 – 13:00  Q & A

EN

[Leslie Lamport, Microsoft](#)

#design #formal-methods #math #tla-plus



RU

Lin-Check: Testing concurrent data structures in Java

[Nikita Koval, JetBrains & IST Austria](#)

#concurrency #linearizability #dual-data-structures

13:00 – 14:00 Lunch

14:00 – 15:00  Wait-free data structures and wait-free transactions

EN

[Pedro Ramalhete, Cisco Systems](#)

#lock-free #concurrent-data-structures #stm #ACID #persistent-memory



RU

Distributed transactions in YDB

[Semyon Checherinda, Yandex](#)

#distributed-transactions #newsq #scalable-coordination

15:00 – 15:30 Break

15:30 – 16:30  The H2O distributed K/V algorithm

EN

[Cliff Click, CRATUS](#)

#performance #algorithm #low-level #memory-model #state-machine #lock-free-programming



EN

The cost of distributed transactions between arbitrary databases

[Denis Rystsov, Microsoft](#)

#transactions #trade-offs #two-phase-commit #percolator #ramp #isolation

16:30 – 17:00 Break

17:00 – 18:00  Dual data structures

EN

[Michael Scott, University of Rochester](#)

18:00 Conference closing