Wednesday, March 13, 2019

13:00  Tutorial (MA 005)
       Tobias Friedrich • Network Science

14:45  Tutorial (MA 005)
       Karl Bringmann • Fine-Grained Complexity Theory, Part I

16:30  Tutorial (MA 005)
       Karl Bringmann • Fine-Grained Complexity Theory, Part II

19:00  Welcome Reception
      (Lichthof in Main Building)
Thursday, March 14, 2019

Registration
Welcome

Invited Talk (MA 005)
Petra Mutzel • Algorithmic Data Analysis

Sessions A (MA 005)
Chair: Christoph Dürr

10:20 Enoch Peserico • Paging with dynamic memory capacity

10:45 Shahbaz Khan, Shashank K. Mehta • Depth First Search in the Semi-streaming Model

11:10 Martin Dietzfelbinger, Stefan Walzer • Constant-Time Retrieval with \(O(\log m)\) Extra Bits

Sessions B (MA 004)
Chair: Henning Fernau

10:20 Stefan Kiefer, Corto Mascle • On Finite Monoids over Nonnegative Integer Matrices, Short Killing Words

10:45 Moses Ganardi • Visibly pushdown languages over sliding windows

11:10 Emmanuel Jeandel, Pascal Vanier • A characterization of subshifts with a computable language

Coffee Break

11:35 Coffee Break

Chair: Martin Dietzfelbinger

11:55 Kurtulus Gemici, Elias Koutsoupias, Barnabé Monnot, Christos Papadimitriou, Georgios Piliouras • Wealth Inequality, the Price of Anarchy

12:20 Ágnes Cseh, Attila Juhos • Pairwise preferences in the stable marriage problem

Chair: Christoph Berkholz

11:55 Silvia Butti, Stanislav Živný • Sparsification of Binary CSPs

12:20 Gregor Matl, Stanislav Živný • Beyond Boolean Surjective VCSPs

Group Photo • voluntary

Lunch

Chair: Stefan Kratsch

14:45 Fedor Fomin, Petr Golovach, Dimitrios Thilikos • Modification to Planarity is Fixed Parameter Tractable

15:10 Bart M. P. Jansen, Marcin Pilipczuk, Erik Jan van Leeuwen • A deterministic polynomial kernel for Odd Cycle Transversal, Vertex Multiway Cut in planar graphs

15:35 Eduard Eiben, Dušan Knop, Fahad Panolan, Ondřej Suchý • Complexity of the Steiner Network Problem with Respect to the Number of Terminals

Chair: Meena Mahajan

14:45 Bruno Loff, Sagnik Mukhopadhyay • Lifting Theorems for Equality

15:10 Thomas Watson • A ZPP\(^{\text{NP}[1]}\) Lifting Theorem

15:35 Chetan Gupta, Vimal Raj Sharma, Raghunath Tewari • Reachability in \(O(\log n)\) Genus Graphs is in Unambiguous Logspace

Coffee Break

16:00 Coffee Break

Chair: Ondřej Suchý

16:20 Rémy Belmonte, Eun Jung Kim, Michael Lampis, Valia Mitsou, Yota Otachi, Florian Sikora • Token Sliding on Split Graphs

16:45 Parinya Chalermsook, Andreas Schmid, Sumedha Uniyal • A Tight Extremal Bound on the Lovász Cactus Number in Planar Graphs

17:10 Boris Aronov, Omrit Filtser, Matthew Katz, Khadijeh Sheikhan • Bipartite Diameter, Other Measures Under Translation

Chair: Philipp Woelfel

16:20 Florent Capelli, Stefan Mengel • Tractable QBF by Knowledge Compilation

16:45 Olaf Beyersdorff, Joshua Blinkhorn, Meena Mahajan • Building Strategies into QBF Proofs

17:10 Matthew Cook, Turlough Neary • Average-Case Completeness in Tag Systems
<table>
<thead>
<tr>
<th>Time</th>
<th>Session A (MA 005)</th>
<th>Session B (MA 004)</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Invited Talk (MA 005)</td>
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<tr>
<td></td>
<td>Leslie Ann Goldberg ● Computational Complexity and Partition Functions</td>
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<td>10:00</td>
<td>Coffee Break</td>
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<tr>
<td>10:20</td>
<td><strong>Grzegorz Fabianiski, Michal Pilipczuk, Sebastian Siebertz, Szymon Toruńczyk ● Progressive Algorithms</strong> for Domination and Independence</td>
<td><strong>Stasys Jukna, Andrzej Lingas ● Lower Bounds for DeMorgan Circuits of Bounded Negation Width</strong></td>
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<tr>
<td>10:45</td>
<td><strong>Niklas Hjuler, Giuseppe F. Italiano, Nikos Parotsidis, David Saulpic ● Dominating Sets and Connected Dominating Sets in Dynamic Graphs</strong></td>
<td><strong>Faith Ellen, Rati Gelashvili, Philipp Woelfel, Leqi Zhu ● Space Lower Bounds for the Signal Detection Problem</strong></td>
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<tr>
<td>11:10</td>
<td><strong>Marthe Bonamy, Oscar Defrain, Marc Heinrich, Jean-Florent Raymond ● Enumerating minimal dominating sets in triangle-free graphs</strong></td>
<td><strong>Dušan Knöps, Michal Pilipczuk, Marcin Wrochna ● Tight complexity lower bounds for integer linear programming with few constraints</strong></td>
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<td>11:35</td>
<td>Coffee Break</td>
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<tr>
<td>11:55</td>
<td><strong>Etienne Bamas, Louis Esperet ● Distributed coloring of graphs with an optimal number of colors</strong></td>
<td><strong>Erik Paul ● Finite Sequentiality of Unambiguous Maz-Plus Tree Automata</strong></td>
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<td>12:20</td>
<td><strong>Pál András Papp, Roger Wattenhofer ● Stabilization Time in Weighted Minority Processes</strong></td>
<td><strong>François Le Gall, Harumichi Nishimura, Ansis Rosmanis ● Quantum Advantage for the LOCAL Model in Distributed Computing</strong></td>
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<td>12:45</td>
<td>Lunch</td>
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<td>14:45</td>
<td><strong>Max Bannach, Till Tantau ● On the Descriptive Complexity of Color Coding</strong></td>
<td><strong>Derek Holt, Markus Lohrey, Saul Schleimer ● Compressed decision problems in hyperbolic groups</strong></td>
</tr>
<tr>
<td>15:10</td>
<td><strong>Robert Krauthgamer, Ohad Trabelsi ● The Set Cover Conjecture and Subgraph Isomorphism with a Tree Pattern</strong></td>
<td><strong>Paweł Gawrychowski, Florin Manea, Radoslaw Serafin ● Fast and Longest Rollercoasters</strong></td>
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<tr>
<td>15:35</td>
<td><strong>Archontia Giannopoulou, O-joung Kwon, Jean-Florent Raymond, Dimitrios Thilikos ● Lean tree-cut decompositions: obstructions and algorithms</strong></td>
<td><strong>Julien Destombes, Andrei Romashchenko ● Resource-Bounded Kolmogorov Complexity Provides an Obstacle to Soficness of Multidimensional Shifts</strong></td>
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<td>16:00</td>
<td>Coffee Break</td>
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<td>16:20</td>
<td><strong>Felix Hommelsheim, Moritz Mühlenthaler, Oliver Schaudt ● How to Secure Matchings Against Edge Failures</strong></td>
<td><strong>Gleb Posabin, Alexander Shen ● Random noise increases Kolmogorov complexity and Hausdorff dimension</strong></td>
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<tr>
<td>16:45</td>
<td><strong>Alexander Grigoriev, Tim Hartmann, Stefan Lendl, Gerhard J. Woeginger ● Dispersing obnoxious facilities on a graph</strong></td>
<td><strong>David Auger, Pierre Coucheney, Yann Strozecki ● Solving simple stochastic games with few random nodes faster using Bland’s rule</strong></td>
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<td>17:10</td>
<td><strong>Kasper Green Larsen ● Constructive Discrepancy Minimization with Hereditary L2 Guarantees</strong></td>
<td><strong>Sandeep Sen ● A unified approach to tail estimates for Randomized Incremental Construction</strong></td>
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<td>18:30</td>
<td>Guided Tour (18:30 – 19:30) and Conference Dinner (19:30 – 22:30)</td>
<td>(Aquarium Berlin)</td>
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Invited Talk (MA 005)
Anca Muscholl • The Many Faces of String Transducers

Saturday, March 16, 2019

9:00

Invited Talk (MA 005)
Anca Muscholl • The Many Faces of String Transducers

10:00

Coffee Break

Sessions A (MA 005)
Chair: André Nichterlein

Spyros Angelopoulos, Christoph Dürr, Shendan Jin • Best-of-two-worlds analysis of online search

Kelin Luo, Thomas Erlebach, Yinfeng Xu • Car-Sharing on a Star Network: On-line Scheduling with k Servers

Alexander Birx, Yann Disser • Tight analysis of the Smartstart algorithm for online Dial-a-Ride on the line

11:35

Coffee Break

Chair: Till Tantau

Eva-Maria Hols, Stefan Kratsch • On Kernelization for Edge Dominating Set under Structural Parameters

Stephan Kreutzer, Irene Muzi, Patrice Ossona de Mendez, Roman Rabinovich, Sebastian Siebertz • Algorithmic Properties of Sparse Digraphs

12:45

End of STACS 2019
Wi-Fi Information

- **Eduroam** available
- **Guest Account Login** – Instructions:
  1. Select the network **TUB-Guest**.
  2. Open a browser (e.g. Firefox, Chrome) and you will be automatically redirected to the login site.
  3. Please enter the guest username and the corresponding password (case sensitive – see **back of your name tag**) into the login form.
  4. After the confirmation of the terms of service, you are online.
  5. After successful login, a pop-up window with a logout button will open. This can be used to terminate the session.

Public Transport

- To find your way around Berlin, we suggest to use the **BVG FahrInfo Plus** App or Google Maps.
- For routes and stations in vicinity of the conference venue at a glance, see the public transport map in your Welcome Bag (including a city map).
- Tickets can be purchased at every metro [U] or train [S] station as well as inside busses and trams (cash only).

Food and Drinks

- The coffee breaks take place in front of the lecture halls of Session A (MA 005) and Session B (MA 004). The reception on Wednesday, March 13, from 19:00 to 21:00 is at the Lichthof in the Main Building (see **STACS 2019 Conference Site**). The conference dinner on Friday, March 15, from 18:30 to 22:30 is at the Aquarium Berlin (see **Conference Dinner**).
- For lunch, there are several options on and off campus (see **Restaurants and Bars**). At some lunch options (specially marked with □), payment is only possible with a so-called Mensa-Card.
- **Mensa-Card**
  - The card is available on request at the registration desk and can be charged at machines at the corresponding lunch options.
  - To get your remaining cash back, please return the card at the corresponding lunch options latest on Friday, March 15. (On Saturday, March 16, these locations will be closed.)

For more information see [https://stacs2019.akt.tu-berlin.de](https://stacs2019.akt.tu-berlin.de)
Many restaurants & bars around Savignyplatz

Lunch options

A TU Employee Canteen* – Canteen (9th floor)
B Math Cafeteria* – Snacks, Indian food
C Cafeteria EN* – Snacks, salads, one lunch option, with an outside area
D Café Nero – Canteen in the library with an outside area
E Main Mensa* – □ Main canteen of TU Berlin
F Cafeteria TU Architecture* – □ Canteen with an outside area
G Cafeteria TU Skyline* – □ Canteen with a beautiful view over Berlin (20th floor)
H Cafeteria TU Marchstrasse* – □ Canteen
I Café am Salzufer* – Italian restaurant
J Taverna Ambrosios – Greek restaurant
K I Fidele – Italian restaurant
L Rüya – Döner Kebap (vegetarian option)
M Tu-Long – Chinese restaurant
N Manjurani – Indian restaurant
O Café Hardenberg – Traditional German restaurant
P Satyam – Indian restaurant (purely vegetarian)

□ Mensa-Card needed
* Closed on Saturday

Food and Drinks in the evening

1 Zwiebelfisch – Traditional Berlin pub (small snacks available)
2 Diener Tattersall – Traditional Berlin restaurant & pub
3 A-Trane – Jazz bar
4 Schwarzes Café – Long established restaurant & bar (open 24/7)
5 The Hat Bar – Jazz bar (jam sessions every evening)

For further suggestions – especially for Thursday evening – see https://stacs2019.akt.tu-berlin.de