Hausdorff School
“Algorithmic Data Analysis”
23 to 27 May 2022
organized by
Anne Driemel and Melanie Schmidt

- Monday, May 23

<table>
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<th>Time</th>
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<td>09:00 - 09:30</td>
<td>Self Registration</td>
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| 09:30 - 09:45 | Organizers  
Opening                                                  |
| 09:45 - 10:30 | Ioannis Emiris (Athena Research Center and University of Athens, Greece)  
Geometric approximation in general dimension I |
| 10:30 - 11:00 | Coffee break                                                         |
| 11:00 - 11:45 | Ioannis Emiris  
Geometric approximation in general dimension II |
| 11:45 - 12:30 | Ioannis Emiris  
Geometric approximation in general dimension III |
| 12:30 - 14:15 | Lunch break                                                          |
| 14:15 - 15:00 | David Mount (University of Maryland, US)  
Analysis of spatial data from the perspective of proximity I |
| 15:00 - 15:30 | Coffee break (with cake)                                            |
| 15:30 - 16:15 | David Mount  
Analysis of spatial data from the perspective of proximity II |
| 16:15 - 17:00 | David Mount  
Analysis of spatial data from the perspective of proximity III |
| Afterwards | Reception                                                             |

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Universität Bonn

Lipschitz-Saal (room 1.016), Endenicher Allee 60, Bonn
• Tuesday, May 24

09:00 - 09:45  Ruth Urner (York University, Canada)  
  Statistical learning theory I

09:45 - 10:30  Ruth Urner  
  Statistical learning theory II

10:30 - 11:00  Coffee break

11:00 - 11:45  Ruth Urner  
  Statistical learning theory III

11:45 - 12:30  Poster Session

12:30 - 14:15  Lunch break

14:15 - 15:00  Ioannis Emiris  
  Geometric approximation in general dimension IV

15:00 - 15:30  Coffee break (with cake)

15:30 - 16:15  David Mount  
  Analysis of spatial data from the perspective of proximity IV

16:15 - 17:00  Ruth Urner  
  Statistical learning theory IV

• Wednesday, May 25

09:00 - 09:45  Jeff Phillips (University of Utah, US)  
  Sketching geometric data for simple machine learning I

09:45 - 10:30  Jeff Phillips  
  Sketching geometric data for simple machine learning II

10:30 - 11:00  Coffee break

11:00 - 11:45  Jeff Phillips  
  Sketching geometric data for simple machine learning III

11:45 - 12:00  Group photo

12:00 - 14:00  Lunch break

14:00 - 17:00  Social event: Hike Melbtal  
  Meet at Clemens-August Platz
**Thursday, May 26**

| 09:00 - 09:45 | Ken Clarkson (IBM Research, US)  
|              | Matrix sketching techniques for data analysis I |
| 09:45 - 10:30 | Ken Clarkson  
|              | Matrix sketching techniques for data analysis II |
| 10:30 - 11:00 | Break |
| 11:00 - 11:45 | Ken Clarkson  
|              | Matrix sketching techniques for data analysis III |
| 11:45 - 12:30 | Poster Session |
| 12:30 - 14:15 | Break |
| 14:15 - 15:00 | Robert Krauthgamer (Weizmann Institute, Israel)  
|              | Streaming algorithms for vectors and matrices I |
| 15:00 - 15:30 | Break |
| 15:30 - 16:15 | Robert Krauthgamer  
|              | Streaming algorithms for vectors and matrices II |
| 16:15 - 17:00 | Robert Krauthgamer  
|              | Geometric approximation in general dimension III |

**Friday, May 27**

| 09:00 - 09:45 | Jeff Phillips  
|              | Sketching geometric data for simple machine learning IV |
| 09:45 - 10:30 | Ken Clarkson  
|              | Matrix sketching techniques for data analysis IV |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 11:45 | Robert Krauthgamer  
|              | Streaming algorithms for vectors and matrices IV |
| 11:45 - 12:30 | Open Problem Session and Discussion |

All talks take place at the Lipschitz-Saal (room 1.016), Endenicher Allee 60, Bonn. Poster sessions take place in the Plücker room (next to the Lipschitz-Saal).