

Hausdorff School
“Algorithmic Data Analysis”

23 to 27 May 2022

organized by
Anne Driemel and Melanie Schmidt

• Monday, May 23

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

• **Tuesday, May 24**

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| 09:00 - 09:45 | Ruth Urner (York University, Canada) <i>Statistical learning theory I</i> |
| 09:45 - 10:30 | Ruth Urner <i>Statistical learning theory II</i> |
| 10:30 - 11:00 | <i>Coffee break</i> |
| 11:00 - 11:45 | Ruth Urner <i>Statistical learning theory III</i> |
| 11:45 - 12:30 | <i>Poster Session</i> |
| 12:30 - 14:15 | <i>Lunch break</i> |
| 14:15 - 15:00 | Ioannis Emiris <i>Geometric approximation in general dimension IV</i> |
| 15:00 - 15:30 | <i>Coffee break (with cake)</i> |
| 15:30 - 16:15 | David Mount <i>Analysis of spatial data from the perspective of proximity IV</i> |
| 16:15 - 17:00 | Ruth Urner <i>Statistical learning theory IV</i> |

• **Wednesday, May 25**

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| 09:00 - 09:45 | Jeff Phillips (University of Utah, US) <i>Sketching geometric data for simple machine learning I</i> |
| 09:45 - 10:30 | Jeff Phillips <i>Sketching geometric data for simple machine learning II</i> |
| 10:30 - 11:00 | <i>Coffee break</i> |
| 11:00 - 11:45 | Jeff Phillips <i>Sketching geometric data for simple machine learning III</i> |
| 11:45 - 12:00 | <i>Group photo</i> |
| 12:00 - 14:00 | <i>Lunch break</i> |
| 14:00 - 17:00 | <i>Social event: Hike Melbtal</i> <i>Meet at Clemens-August Platz</i> |

• **Thursday, May 26**

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

• **Friday, May 27**

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

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).