



**EINSTEIN**  
Foundation.de

**Einstein Workshop  
„Geometry and Physics in Computer Graphics“**

**09 – 11 April 2018** at

TU Berlin, Institute of Mathematics,  
lecture hall MA 043, Strasse des 17. Juni 136,  
10623 Berlin



**DGD**

Discretization in  
Geometry and Dynamics  
SFB Transregio 109

## Monday, 09 April 2018

- 09:00 – 09:30**    **Registration** (near lecture hall)
- 09:30 – 09:45**    **Welcome Address**
- 09:45 – 10:30**    **Chris Wojtan: Water surface waves**
- 10:30 – 11:00*    *Coffee*
- 11:00 – 11:45**    **Helmut Pottmann: Discrete geometric structures motivated by applications in architecture**
- 11:45 – 13:45*    *Lunch Break*
- 13:45 – 14:30**    **Klaus Hildebrandt: Model reduction for elasticity-based shape processing**
- 14:30 – 15:00*    *Coffee*
- 15:00 – 15:45**    **Max Wardetzky: From shapes to shape spaces**
- 15:45 – 16:15*    *Time for discussion (with coffee)*
- 16:15 – 17:00**    **Niloy Mitra: Physics-priors for geometry reconstruction**
- 17:00 – 18:00*    *Welcome Reception (1<sup>st</sup> floor)*

**General information:**

All talks will take place in lecture hall MA 043 on the ground floor of the math building.  
Conference room MA 875, 8<sup>th</sup> floor of the math building, is available for further discussions.  
Possible place for lunch: Staff cafeteria, 9<sup>th</sup> floor of the math building (on your own account).

## Tuesday, 10 April 2018

**09:15 – 10:00** Nils Thuerey: Deep learning for fluid simulations

*10:00 – 10:30* Coffee

**10:30 – 11:15** Nadav Dym: Linear algorithms for computing conformal mappings

*11:15 – 11:45* Time for discussion (with coffee)

**11:45 – 12:30** Bruno Lévy: A computational method for early universe reconstruction

*12:30 – 14:30* Lunch Break

**14:30 – 15:15** Rüdiger Westermann: Scalable topology optimization and beyond

*15:15 – 15:45* Coffee

**15:45 – 16:30** Johannes Wallner: Material-minimizing forms and structures

*16:30 – 17:00* Time for discussion (with coffee)

*17:00 – 18:00* Transfer to Brauhaus Lemke (by foot ca. 35 minutes or by bus ca. 15 minutes)

*Starting 18:00* Workshop Dinner at Brauhaus Lemke am Schloss Charlottenburg  
(on your own account)

## Wednesday, 11 April 2018

**09:15 – 10:00** Emanuele Rodolà: Spectral approaches to partial deformable shape matching

*10:00 – 10:30* Coffee

**10:30 – 11:15** Pierre Alliez: Optimal mass transport and application to inter-surface mapping

*11:15 – 11:45* Time for discussion (with coffee)

**11:45 – 12:30** Mirela Ben-Chen: Reversible harmonic maps between discrete surfaces

**12:30 – 13:00** Concluding Remarks