

Program

Sunday, May 28, 2017

17:00 – 21:00 Register

From 18:00 *BUFFET DINNER / Informal get together*

Monday, May 29, 2017

07:30 *BREAKFAST*

08:40 – 09:00 Joachim Bill **Welcome and opening**
Hendrik Hölscher
Mato Knez

09:00 – 09:40 Silvia Vignolini **Photonics: from nature to applications**

09:40 – 10:20 Mathias Kolle **Biologically Inspired Soft and Fluid
Optical Materials**

10:20 – 10:50 *COFFEE BREAK*

10:50 – 11:30 Ulrich Steiner **Biological Whiteness**

11:30 – 11:50 Bor-Kai Hsiung **Unique Rainbow Spider Scales with
High Wavelength Resolving Power**

11:50 – 12:30 Radwanul H. Siddique **Bio-inspired nanophotonic structures
for biosensing: from low concentration
protein sensing to in-vivo intraocular
pressure sensing**

12:30 – 12:40 **Conference photo** (in front of the Physikzentrum/main entrance)

12:40 *LUNCH*

Program

Monday, May 29, 2017

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| 14:00 – 14:40 | Fiona Meldrum | Controlling Crystallization using Confinement and Surface Topography |
| 14:40 – 15:00 | Guillaume Gomard | Plant epidermal cells as light-harvesting elements for photovoltaics |
| 15:00 – 15:40 | Ingrid Weiss | Material and Structure: First Steps Towards Functionality by Genetic Engineering |
| 15:40 – 16:10 | <i>COFFEE BREAK</i> | |
| 16:10 – 16:50 | Cordt Zollfrank | Bioteemplating of structural and functional materials |
| 16:50 – 17:10 | Diana Skigin | Structural Color and Other Electromagnetic Effects in Natural Structures |
| 17:10 – 17:50 | Andreas Fery | Colloidal surface assemblies: Nanotechnology meets Bioinspiration |
| 17:50 – 18:30 | Dirk Rothenstein | Peptide-controlled Biomineralization |
| 18:30 – 18:45 | Stefan Jorda | About the Wilhelm and Else Heraeus Foundation |
| 19:00 | HERAEUS DINNER (cold & warm buffet with complimentary drinks) | |

Program

Tuesday, May 30, 2017

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| 07:30 | <i>BREAKFAST</i> | |
| 09:00 – 09:40 | Wilhelm Barthlott | The Secret of Sacred Lotus: Functional Surfaces for Technical Innovations from Biological Diversity |
| 09:40 – 10:20 | Maryna Kavalenka | Multifunctional Bioinspired Nanohair- Covered Surface for Environmental Applications |
| 10:20 – 10:50 | <i>COFFEE BREAK</i> | |
| 10:50 – 11:30 | Kerstin Koch | Bouncing, splashing and spreading of water droplets on biological and biomimetic surfaces |
| 11:30 – 11:50 | Yongmei Zheng | Bioinspired gradient surfaces with controlling of dynamic wettability |
| 11:50 – 12:30 | Christoph Neinhuis | Nature inspired surface modifications for improved product properties |
| 12:30 | <i>LUNCH</i> | |
| 14:00 – 14:40 | Aránzazu del Campo | Hybrid surface patterns mimicking frog toe pad wet-adhesive design |
| 14:40 – 15:00 | Maximilian Rothammer | Tailored disorder in functional optical bioinspired materials |
| 15:00 – 15:40 | Zakalina Burghard | Bioinspired structural design of ceramic based functional materials |
| 15:40 – 16:10 | <i>COFFEE BREAK</i> | |

Program

Tuesday, May 30, 2017

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|---------------|-----------------------|---|
| 16:10 – 16:50 | Thomas Scheibel | Engineered functional interfaces based on spider silk proteins |
| 16:50 – 17:10 | Stefan Walheim | Polymer Blend Lithography: Large Area Nanostructures for Biomimetic Applications |
| 17:10 – 17:50 | Filipe Natalio | Towards materials farming: biological fabrication of cellulose fibers with tailored properties |
| 17:50 – 19:00 | Poster-Flash | |
| 19:00 | <i>Dinner</i> | |
| 20:00 | Poster Session | |

Program

Wednesday, May 31, 2017

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| 07:30 | <i>BREAKFAST</i> | |
| 09:00 – 09:40 | David Kisailus | Impact and Wear Resistant Biological Surfaces |
| 09:40 – 10:00 | Itxasne Azpitarte Iraculis | Improving the properties of Kevlar through vapor phase infiltration |
| 10:00 – 10:40 | Thomas Speck | Attachment and anti-attachment structures in plants – biomechanics and surface structures |
| 10:40 – 11:10 | <i>COFFEE BREAK</i> | |
| 11:10 – 11:50 | Ingo Burgert | Wood-based hierarchical scaffolds for functional materials |
| 11:50 – 12:10 | Chih-hung Chang | Bio-inspired, Micro-, Nanostructured Surface for Thermal Energy Management via Phase Change |
| 12:10 – 12:40 | Panel Discussion & Best Poster Awards | |
| 12:40 | <i>LUNCH</i> | |
| 14:00 – 14:40 | Stanislav N. Gorb | Structural, material, and functional gradients in biological attachment systems |
| 14:40 – 15:00 | Julia Syurik | Bio-inspired highly scattering white all-polymer films |
| 15:00 – 15:40 | Werner Baumgartner | Friction reducing sandfish skin |
| 15:40 | Joachim Bill Hendrik Hölscher Mato Knez | Closing & Farewell Coffee |

End of the seminar and departure

Breakfast at 07:30 h for those leaving on Thursday, 1 June 2017