

Agenda für das 3. Treffen des Wissenschaftlichen Beirats des FIT  
Agenda for the third meeting of the Advisory Board of FIT

**Donnerstag, den 12. April 2018 um 12:00 – 17:10 Uhr**  
**Thursday, 12th of April 2018 from 12:00 to 5:10 pm**

Ort / Venue: FIT, Georges-Köhler-Allee 105, Seminarraum EG

- 12:00 Uhr Empfang und Lunch im Foyer  
Lunch at the foyer
- 13:00 Uhr Beginn öffentlicher Teil  
Start of the public session
- 13:00 Uhr Begrüßung durch den Geschäftsführenden Direktor des FIT (Jürgen Rühle)  
Welcome by the executive director of the FIT (Jürgen Rühle)
- 13:05 Uhr Begrüßung durch Ingo Burgert, Vorsitzender des Advisory Boards  
Welcome by Ingo Burgert, chairman of the Advisory Board

**Kooperationsprojekte / Cooperation Projects**

- 13:10 Uhr **Jürgen Rühle** (Kurz-Bericht des Geschäftsführenden Direktors/short report by the executive director)  
*"FIT for the future – the future of the FIT"*
- 13:25 Uhr **Thomas Speck**  
*"Bio-inspired architecture – Plants as role models"*  
SFB/TRR 141
- 13:40 Uhr **Jürgen Rühle**  
*"Living, Adaptive and Energy-autonomous Materials Systems (livMatS)"*  
Cluster Initiative livMatS

**Wissenschaftliche Vorträge/Scientific Presentations: Core Facilities**

- 13:55 Uhr **Stefanie Schmier**  
*"Three-dimensional visualization of the microstructure of the coconut endocarp using the  $\mu$ CT"*  
Core facility "Bildgebung von Materialsystemen" / Core facility „Imaging of Materials Systems“
- 14:10 Uhr **Claas Müller**  
*"The partner to realize new ideas"*  
Core facility „Fertigungstechnik“ / Core facility „Functional Processing“
- 14:25 Uhr **Michael Walter**  
*"Modelling and Simulation of complex experiments by ab-initio methods"*  
Core Facility „Modellierung und Simulation von Materialsystemen“ / Core facility "Modelling and Simulation of Materials Systems"
- 14:40 Uhr **Kaffeepause mit Posterpräsentationen / Coffee break and poster session**

## Posters:

Core facility „Fertigungstechnik“/Core facility „Functional Processing“

- **Georg Bold** *“FIT 3D Lab - New 3D printers for diverse applications”*

Zukunftsfeld „Adaptive polymere Werkstoffe“ / Future Field "Adaptive Polymer Materials"

- **Esther Riga** *“Self-regenerating antimicrobial surfaces via multilayer design”*
- **M. Bahrami** *“Lubrication of surfaces through surface-attached hydrogels: Slippery when wet”*
- **D. Schwärzle** *“Two-photon crosslinking of photoactive polymers – A new method for the two-photon lithography”*

Zukunftsfeld "Energieautarke (Mikro)Systeme" / Future Field "Energy-Autonomous Microsystems"

- **Severin Vierrath** *“FIB-SEM tomography for polymer electrolyte fuel cells: chances and challenges”*
- **Stefan Schierle** *“High aspect ratio silver nanowires for flexible conductive networks with high optical transparency as electrodes for mechanical actuators”*

Zukunftsfeld "Biomimetische und biobasierte Materialien" / Future Field "Biomimetic and Bio-based Materials"

- **Stefanie Schmier** *“Plants and animals as source of inspiration for increased energy dissipation, residual strength and improved insulation – theoretical background and application in load-bearing building components”*
- **Max Langer** *“Force transmission and actuation in the transition zone between rod-shaped and planar elements”*
- **Anna Westermeier** *“Kinematic principles and motion design in shape shifting plant structures”*
- **Tom Masselter** *“Stem and root branching types of selected plant species as concept generators for supporting and anchoring structures”*
- **Simon Poppinga** *“Responsive autonomous surface structures inspired by passive multi-phase plant movements”*
- **Olga Speck** *“Public relations”*
- **D. Hoenders, A. Walther** *“Photoactive Cellulose Nanofibrils as a Versatile Platform for Functional Materials”*
- **Taras Sych** *“Investigation of the membrane reorganization during uptake processes”*

## Wissenschaftliche Vorträge/Scientific Presentations: Forschungsfelder/Future Fields

Zukunftsfeld „Adaptive polymere Werkstoffe“ / Future Field "Adaptive Polymer Materials"

15:30 Uhr **Jan Behrends**  
*“Polymers in pores: from single molecule analytics to stochastic exploration of energy landscapes”*

15:45 Uhr **Karen Lienkamp**  
*“The Quest for the Holy Grail in Anti-Infective Materials: From Self-regenerating Multilayers to Simultaneously Antimicrobial and Protein-repellent One-layer Coatings”*

Zukunftsfeld "Biomimetische und biobasierte Materialien" / Future Field "Biomimetic and Bio-based Materials"

16:00 Uhr **Andreas Walther**  
*“Autonomous Self-Assemblies Inspired From Living Systems”*

16:15 Uhr **Tom Masselter**  
*“Stems and root branching types of selected plant species as concept generators for supporting and anchoring structures”*

**Zukunftsfeld "Energieautarke (Mikro)Systeme" / Future Field "Energy-Autonomous Microsystems"**

- 16:30 Uhr **Peter Woias**  
*"Characterization platforms for single thermoelectric nanowires"*
- 16:45 Uhr **Anna Fischer**  
*"BiVO<sub>4</sub> thin films for solar water splitting"*
- 17:00 Uhr **Schlussworte / Closing remarks**
- 17:10 Uhr **Ende des öffentlichen Teils / End of the public part of the meeting**