



LEIBNIZ  
INSTITUTE of  
PHOTONIC  
TECHNOLOGY  
ipht jena

Leibniz Institute of Photonic Technology  
Nano Biophotonics Department



**Transfer: Downtown – IPHT  
(15 min bus)**



[www.dna-jena.de](http://www.dna-jena.de)

### Meeting Focus:

DNA represents a promising source for the realization of new and unique functional units and materials with novel properties, which will be the main theme for this meeting. Especially the emergence of novel DNA superstructures and their potential for new functionalities with unprecedented lateral as well as molecular resolution will be discussed, as well as approaches for integration and upscaling.

**Contact Infos:**

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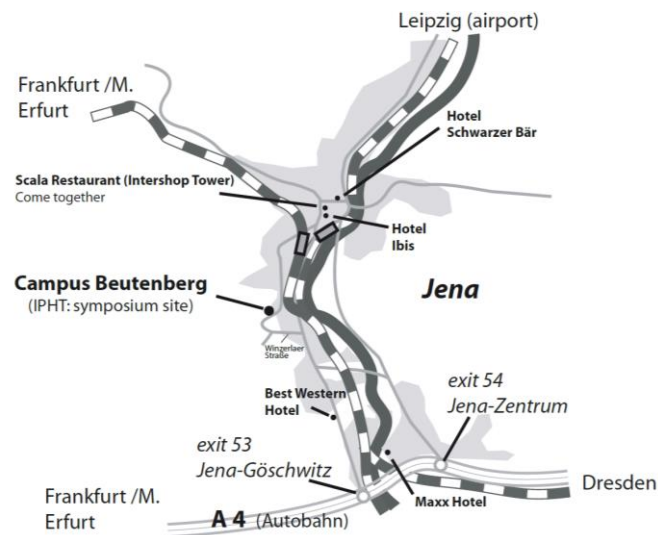
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## International Symposium

**Jena (Germany)**  
**May 19-21, 2016**

Organizer: Wolfgang Fritzsche



**DFG**



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Thursday, May 19

12:00 pm Workshop DNA Mitteldeutschland at IPHT, Campus Beutenberg

“Scala” Restaurant, Intershop tower, downtown

07:00 pm Get-Together

Friday, May 20

IPHT, Campus Beutenberg

09:00 am Opening & Novel Approaches (Wolfgang Fritzsche)

- Itamar Willner (Univ. Jerusalem)

Stimuli-Responsive DNA-Based Materials
- Giampaolo Zuccheri (Bologna)

Molecular self-assembly by HCR
- Ilko Bald (Potsdam)

Probing DNA radiation damage by DNA Nanotechnology

- Coffee Break -

10:45 am Conductivity and Metallization (Itamar Willner)

- Danny Porath (Jerusalem)

The Quest for Charge Transport in DNA-Based Molecules
- Bezu Teschome (Paderborn)

Functional DNA origami nanotubes for nanoelectronics
- Ralf Seidel (Leipzig)

Biomimetics with DNA origami
- Adam Woolley (B.-Young-Univ.)

DNA-templated assembly of conductive nanostructures

- Lunch -

01:30 pm Molecular Assemblies (Adam Woolley)

- Dongsheng Liu (Tsinghua Univ.)

The Frame Guided Assembly
- Saminathan Ramakrishnan (Paderborn)

Structural Stability of DNA Origami
- Wei-Ching Liao (Jerusalem)

Stimuli-responsive microcapsules for controlled release
- Dave Smith (Leipzig)

Engineering of Nanoscale Devices to Program Biol. Systems

Friday, May 20

Continued

03:10 pm Posters: Short Presentations

03:30 pm Poster Session (Coffee and Cake)

05:00 pm Excursion & Dinner

Saturday, May 21

IPHT, Campus Beutenberg

09:15 am Single Molecules (Dongsheng Liu)

- I-Ming Hsing (Hongkong UST)

Dynamic DNA Self-Assembly based Nucl. Acids Sensing
- Andrew Pike (Newcastle)

Off-the-shelf designer DNA: sequence-to-order and length-to-fit
- Ja-an Annie Ho (Taipeh)

An Integrated ElectroSensor Based on DNA-immunosuperstructure
- Izabela Kaminska (Braunschweig)

DNA origami antennas with gold/silver nanoparticles

- Coffee Break -

11:15 am Substrate patterning & spectroscopy (Andrew Pike)

- Jussi Toppari (Jyväskylä)

Plasmonic nanostructures based on DNA origami silhouettes
- Julia Prinz (Potsdam)

Origami-gold nanoparticle-graphene hybrid structures for SERS
- Volker Deckert (Jena)

Single base resolution by Tip-enhanced Raman scattering

00:30 pm End of the Scientific Program

- Lunch -

List of Posters

- Obasi Chinedu Chamberlin (IZI Leipzig)

Role of enabled surface diffusion in ordering DNA Origamis on surfaces
- Florian Engert (Uni Leipzig)

Combination of Layer-by-Layer Microcarriers and DNA Origami
- Kenny Elbel (Potsdam)

Optimization of DNA origami substrates for the study of electron-induced DNA strand breaks
- Martin Glaser (Uni Leipzig)

Self-assembly of hierarchically ordered structures in DNA nanotube systems
- Julia Hann (Chemnitz)

Surface patterning and assembly of DNA Origami structures by electrostatic forces
- Tina Händler (Uni Leipzig)

Mesh size of DNA nanotube networks
- Chistian Heck (Potsdam)

Gold nanolenses self-assembled by DNA origami for surface-enhanced Raman scattering
- Ja-an Annie Ho (NTU Taipeh)

Target-triggered DNA three-way junction superstructure and cascade isothermal signal amplification enable subtyping of influenza A virus
- Johanna Langner (IPHT Jena)

Functionalized DNA-origami for photonic devices
- Rachel Little (Newcastle)

An Extendable Method to Produce Specific Base Pair Lengths of DNA
- Jessica Lorenz (IZI Leipzig)

Artificial actin crosslinkers for control of cell motion
- Valentina Masciotti (Trieste)

3D DNA-origami as a molecular dynamometer
- Michael Matthies (Dresden)

Triangulated DNA Trusses
- Christin Möser (IZI Leipzig)

DNA nanostructures as multivalent carrier for peptides
- Lydia Olejko (Potsdam)

Ion-controlled three-color fluorescent telomeric switch on DNA origami
- Martin Sajfutdinow (IZI Leipzig)

Single molecule contact printing for fabrication of nano-arrays
- Carsten Schuldt (Uni Leipzig)

Persistence length strongly contributes to network mechanics of entangled semiflexible filaments
- Alexander Spaeth (IZI Leipzig)

Construction of a multifunctional DNA-based carrier system for Antisense Oligonucleotide delivery
- Sophie Thamm (IPHT Jena)

Characterization of LSPR sensing with anisotropic nanoparticles
- Matthias Thiele (IPHT Jena)

Microfluidic high-throughput synthesis of form anisotropic plasmonic nanoparticles
- Colette Whitfield (Newcastle)

Designer DNA for Biomedical and Nanotechnology Applications
- Yinghua Zhang (Hongkong UST)

Enzyme-Free Target-Recycling HgII Detection Assisted by DNA Dendritic Self-Assembly