



PROGRAM

Date: July 5, 2024

Venue: Faculty of Physics and Earth System Sciences, Lecture Hall for Theoretical Physics, Linnéstr. 5, 04103 Leipzig

08:55–09:00	Meeting of the Members of the Institute
09:00–09:05	Welcome
09:05–09:25	Nematics of the extracellular matrix <u>Pablo Gottheil</u> , Saraswat Bhattacharyya, Kilian Roth, Philip Friedrich, Salvador Rivera-Moreno, Anne-Sophie Wegscheider, Hans Kubitschke, Axel Niendorf, Julia Yeomans, Josef A. Käs
09:25–09:45	Regulation of helicase activity in long-range DNA end resection <u>Martin Mütze</u> , Ilaria Ceppi, Maria Stritto, Stefan Brainshier, Valentina Mengoli, Aurore Sanchez, Giordano Reginato, Swagata Halder, Sean Howard, Ralf Seidel, Petr Cejka
09:45–10:05	Optical photothermal infrared spectroscopy – bridging two worlds <u>A. Markus Anton</u> , Felix H. Patzschke, Frank Cichos
10:05–10:25	Microbial dynamics: from navigation in complex environments to behavioral individuality Katja M. Taute
10:25–10:50	Break (Aula)
10:50–11:10	Sensing of lipid membranes using DNA origami Rayehe Mamaghaniyeh, Subasini Singh, Ece Büber, Philip Tinnefeld, <u>Henri G. Franquelim</u>
11:10–11:30	Programming fibril alignment and mechanical response in electron beam-modified collagen type I fibers <u>Friedrich Schütte</u> , Anastassiya Bublikova, Stefan G. Mayr
11:30–11:50	Nano-tufts – A hairy story of limited configurations and conductivity <u>Martin Treß</u> , Alaa Hassan, Wing Kit Or
11:50–12:10	Cellular signal processing, growth, adaptation, and optimal resource allocation Ralf Steuer
12:10–12:30	Quiz
12:30–14:15	Poster Session and Lunch (Corridor/Aula)
14:15–14:35	Investigating the R-loop formation by CRISPR-dCas9 with ultrafast single-molecule twist measurements <u>Fabian Welzel</u> , Julene Madariaga-Marcos, Dominik J. Kauert, Ralf Seidel
14:35–14:55	Fibrous materials within the realm of soft matter <u>Amit Rawal</u> , Mareike Zink
14:55–15:15	Rigid restriction: the aortic wall dilemma <u>Philip Friedrich</u> , Josephina Haunschild, Sabrina Friebe, Frank Sauer, Jörg Schnauß, Jürgen Lippoldt, Jannis Korn, Thomas Fuhs, Pablo Gottheil, Kolya Lettl, Kevin Körner, Dimitrij Tschodu, Cary Tutmarc, Hannah Marie Eichholz, Xiaofan Xie, Paul Mollenkopf, Denny Böttcher, Stefan G. Mayr, Christian Etz, Josef A. Käs
15:15–15:35	Influence of thermostats on the dynamics of the helix-coil transition <u>Maximilian Conradi</u> , Henrik Christiansen, Suman Majumder, Fabio Müller, Wolfhard Janke
15:35–16:00	Break (Aula)
16:00–16:20	Active particle steering in three-dimensions <u>Gordei Anchutkin</u> , Frank Cichos
16:20–16:40	Dynamics of bacterial competition and coexistence in small confined volumes <u>Christian Westendorf</u> , Valentin Slepukhin, Birgit Koch, Victor Peris Yague, Aditya Prasad, Joao Ascensao, Oskar Hallatschek
16:40–18:00	Poster Session (Corridor)
18:00	Barbecue