Israeli-German WE-Heraeus-Seminar: Unifying Aspects of Topology in Quantum and Classical Systems

27 October – 1 November 2026

at the Physikzentrum Bad Honnef, Germany

WILHELM UND ELSE
HERAEUS-STIFTUNG



Program

Tuesday, 27 October 2026

17:00 – 21:00 Registration

18:30 – 20:00 *BUFFET SUPPER*

Program

Wednesday, 28 October 2026

07:30 – 08:45	*BREAKFAST*	
08:45 – 08:50	Scientific Organizers	**Opening remarks**
08:50 – 09:00	Stefan Jorda	**About the Wilhelm and Else Heraeus Foundation**
09:00 – 09:45	Katharina Franke	**Wave-function engineering of Yu-Shiba-Rusinov states from magnetic atoms and molecules on superconductors**
09:45 – 10:30	Barbara Dietz-Pilatus	**Graphene Billiards Subject to the Haldane Model**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Or Swartzberg	**Statistics of Zero-Energy Conical Intersections in Chiral Random-Matrix Fields**
11:45 – 12:30	Roser Valenti	**Correlations and topology in twisted bilayer graphene**
12:30 – 14:00	*LUNCH*	
14:00 – 14:45	Oded Agam	**Stochastic Morphodynamics in Hydra Regeneration**
14:45 – 15:30	Michael Wilkinson	**Dislocation Mediated Diffusion and the Endoplasmic Reticulum**
15:30 – 16:00	*COFFEE BREAK*	

Program

Wednesday, 28 October 2026

16:00 – 16:45	Netanel Lindner	**Probing Topological Order through the Phase Diagram**
16:45 – 17:30	Mikael C. Rechtsman	**Quantized Nonlinear Thouless Pumping**
17:30 – 18:15	Masahito Ueda	**Harnessing Nonequilibrium Open Quantum Systems**
18:30 – 20:00	*DINNER*	

Program

Thursday, 29 October 2026

08:00 – 09:00	*BREAKFAST*	
09:00 – 09:45	Martin Zirnbauer	**Comments on the "Tenfold Way"**
09:45 – 10:30	Ram Band	**Can one color the shape of a (Kohmoto) butterfly?**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Anwesha Chakraborty	**Average Entanglement Entropy in Quantum Many -Body Systems with SU(2) Symmetry**
11:45 – 12:30	Karol Życzkowski	**Strongly entangled multipartite states: a topological approach**
12:30 – 12:35	*CONFERENCE PHOTO*	
12:35 – 14:00	*LUNCH*	
14:00 – 14:45	Roni Ilan	**Zeros as indicators of non-trivial topology, and where to find them**
14:45 – 15:30	Alexander Altland	**Anderson localization on expanding geometries**
15:30 – 16:00	*COFFEE BREAK*	
16:00 – 18:30	**Poster Session**	
18:30 – 20:00	*DINNER*	

Program

Friday, 30 October 2026

08:00 – 09:00	*BREAKFAST*	
09:00 – 09:45	Erez Zohar	**Gauging, Disentangling and Dualities**
09:45 – 10:30	Yonatan Anahory	**Evidence of competing orders in few-layer NbSe2**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Budhaditya Bhattacharjee	**Beyond Gaussianity**
11:45 – 12:30	Gernot Akemann	**Various regimes of non-Hermiticity: Fluctuations and dissipative spectral form factor**
12:30 – 14:00	*LUNCH*	
14:00 – 14:45	Nir Davidson	**Complex bands and topology with coupled lasers**
14:45 – 15:30	Maciej Lewenstein	**Why photons? A psychoanalytic portrait of a scientist as a mature man**
15:30 – 16:00	*COFFEE BREAK*	
16:00 – 18:30	**Excursion**	
18:30 – 20:00	*HERAEUS CONFERENCE DINNER* *(social event with cold & warm buffet with complimentary drinks)*	

Program

Saturday, 31 October 2026

08:00 – 09:00	*BREAKFAST*	
09:00 – 09:45	Jacobus Verbaarschot	**Topology, Spontaneous Symmetry Breaking and Anti-Unitary Symmetries**
09:45 – 10:30	Hermann Schulz-Baldes	**News about the spectral localizer**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Maria Azhar	**Beyond Integer Topology: Continuous Connections Between Skyrmions and Hopfions**
11:45 – 12:30	Dganit Meidan	**Topological entanglement transitions under partial post-selected monitoring**
12:30 – 14:00	*LUNCH*	
14:00 – 14:45	Harald Giessen	**Discovery of phonon-polaritonic skyrmions: Transition from bubble- to Néel-type**
14:45 – 15:30	Frank Meyer zu Heringdorf	**Linking extended vector wave fields with momentum space topology**
15:30 – 16:00	*COFFEE BREAK*	
16:00 – 16:45	Gregory Berkolaiko	**Topology of the Ritz energy landscape**
16:45 – 17:30	Eugene Kanzieper	**Local Level Spacings and the Inspection Paradox in Random Matrix Theory**
17:30 – 18:15	Mario Kieburg	**Winding Number Statistics for Non-Gaussian Random Fields**
18:30 – 20:00	*DINNER*	

Program

Sunday, 1 November 2026

08:00 – 09:00	*BREAKFAST*	
09:00 – 09:45	Joshua Feinberg	**Flowing to Normality and the Fate of the Single Ring Theorem**
09:45 – 10:30	Uzy Smilansky	**The Lyapunov exponent of a quantum Hamiltonian – graph and ergodic theoretical approach**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Boris Gutkin	**Chern number in quantum graphs**
11:45 – 12:30	Ulrich Kuhl	**Bound states in the continuum induced via local symmetries in complex structures**
12:30 – 14:00	*LUNCH*	

End of the seminar and departure