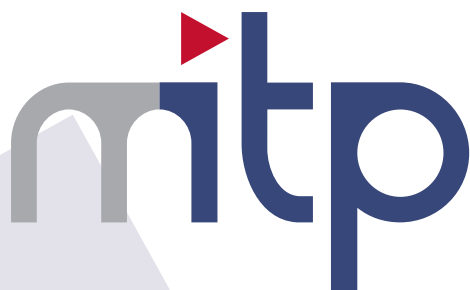


**BACK TO MITP**

# Mainz Institute for Theoretical Physics

## SCIENTIFIC PROGRAMS

### Power Expansions on the Lightcone: From Theory to Phenomenology

Robert Szafron (Brookhaven Nat. Lab.), Ian Mould (Stanford Univ.) and Kai Yan (MPI Munich)

**February 14 – 25, 2022**

### Hadron Spectroscopy: The Next Big Steps

Biplab Dey (Eötvös Loránd Univ.), Patricia Camargo Magalhães (Univ. Bristol), Elisabetta Prencipe (Justus Liebig Univ. Giessen), Jonas Rademacker (Univ. Bristol)

**March 14 – 25, 2022**

### Mega Dark Matter: Theory and Detection

Yang Bai (Univ. Wisconsin-Madison), Joseph Bramante (Queen's Univ.), Dorota Grabowska (CERN), Andrew Long (Rice Univ.), Jessica Turner (Durham Univ.)

**May 2 – 20, 2022**

### Flavor at the Crossroads

Javier Fuentes-Martín (JGU), Peter Stangl (Bern Univ.), Matthias König (TUM, Munich), Carla Marin Benito (LHCb, CERN), Giulio Dujany (Belle II, Strasbourg Univ.)

**April 19-29, 2022**

### Amplitudes Meet BSM

Yu-tin Huang (National Taiwan Univ.), Ian Low (Northwestern Univ.), Alex Pomarol (IFAE Barcelona Univ.), Yael Shadmi (Technion)

**May 30 – June 10, 2022**

### Neutrinos, Flavour and Beyond

Giulia Ricciardi (Univ. Napoli Federico II), Silvia Pascoli (IPPP Durham), Serguey Petcov (SISSA Trieste), Matthias Neubert (JGU)

**June 6 – 17, 2022 Anacapri, Italy**

### A Deep-Learning Era of Particle Theory

Jim Halverson (Northeastern Univ.), Sven Krippendorf (Munich Univ.), Michela Paganini (DeepMind), Tilman Plehn (Heidelberg Univ.), Veronica Sanz (Univ. of Valencia / Univ. Sussex)

**June 13 – July 8, 2022**

### Towards the Next Fundamental Scale of Nature:

#### New Approaches in Particle Physics and Cosmology

Nathaniel Craig (UCSB), Nayara Fonseca (ICTP), Camila Machado (DESY), Gilad Perez (Weizmann), Pedro Schwaller (JGU), Ben Stefanek (Univ. Zurich)

**July 11 – 22, 2022**

### Probing New Physics with Gravitational Waves

Yanou Cui (Univ. California, Riverside), Francesco D'Eramo (Univ. Padua / INFN Padua), Enrico Morgante (JGU), Lisa Randall (Harvard Univ.), Pedro Schwaller (JGU), Raman Sundrum (Univ. Maryland)

**July 25 – August 12, 2022**

### What's the Matter?

#### A Cross-Frontier Pursuit of the Origin of Matter

Djuna Croon (Durham Univ.), Kaori Fuyuto (UNM Los Alamos), Julia Harz (TUM), Joachim Kopp (CERN / JGU), Brian Shuve (Harvey Mudd College / UC Riverside)

**August 22 – September 9, 2022**

### Flavour of BSM in the LHC Era

Diptimoy Ghosh (ISER Pune), Jernej Feseli Kamenik (Univ. Ljubljana), Seung J. Lee (Korea Univ.), Paride Paradisi (Univ. Padua / INFN Padua)

**October 10 – 21, 2022**

## TOPICAL WORKSHOPS

### The Evaluation of the Leading Hadronic Contribution to the Muon $g-2$ : Toward the MUonE Experiment

Carlo M. Carloni Calame (INFN Pavia), Massimo Passera (INFN Padua), Luca Trentadue (Univ. Parma / INFN Milano Bicocca), Graziano Venanzoni (LNF Frascati)

**April 4 – 8, 2022**

### Precision Tests with Neutral-Current Coherent Interactions with Nuclei

Jens Erler (JGU), Charles Horowitz (Indiana Univ.), Mikhail Gorshteyn (JGU), Hubert Spiesberger (JGU)

**May 23 – 27, 2022**

### Searches for Wave-Like Dark Matter with Quantum Networks

Hendrik Bekker (HIM), Dmitry Budker (HIM), Derek F. Jackson Kimball (California State Univ. - East Bay), Tanja E. Mehlstäubler (PTB / Leibniz Univ. Hannover), Arne Wickenbrock (HIM)

**August 15 – 19, 2022**

### Elliptic Integrals in Fundamental Physics

Johannes Brödel (HU Berlin), Ekta Chaubey (Durham Univ.), Claude Duhr (CERN)

**September 12 – 16, 2022**

### Electroweak Precision Physics from Beta Decays to the Z Pole

Monika Blanke (KIT), Andreas Crivellin (Univ. Zurich / PSI), Martin Hoferichter (Univ. Bern), Chien-Yeah Seng (Bonn Univ. / HISKP), Mikhail Gorshteyn (JGU)

**October 24 – 28, 2022**

### Quantum Methods for Lattice Gauge Theories

Mari-Carmen Bañuls (MPI Quantum Optics), Alessio Celi (Physics Dept. UAB), Karl Jansen (NIC, DESY Zeuthen), Simone Montangero (Univ. Padua)

**November 7 – 11, 2022**

## MITP SUMMER SCHOOLS

### TALENT School @ MITP

#### Effective Field Theories in Light Nuclei: From Structure to Reactions

Sonia Bacca (JGU), Nir Barnea (Hebrew Univ. of Jerusalem), Pierre Capel (JGU), Hans-Werner Hammer (TU Darmstadt), Kai Hebeler (TU Darmstadt), Daniel Phillips (Ohio University, Athens)

**July 25 – August 12, 2022**

### BRAZIL

#### Joint ICTP-SAIFR / MITP Summer School on Particle Physics

Gustavo Burdman (IF-USP), Matthias Neubert (MITP), Rogerio Rosenfeld (IFT-USESP / ICTP-SAIFR), Felix Yu (MITP)

**September 12 – 23, 2022**

# ACTIVITIES 2022

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Mainz Institute for Theoretical Physics

PRISMA+ Cluster of Excellence

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