ÉCOLE DE PHYSIQUE DES HOUCHES

2025 PROGRAM

Physics of AI Algorithms – PHAIA 2025

January 12th - 17th Alexandre D'ASPREMONT, Julien MAIRAL, Philippe RIGOLLET, Eric VANDEN-EIJNDEN

CERAMJOULE 2025 National Workshop: Shaping, Sintering, **Microstructure and Functional Properties of Ceramic Materials for**

Energy Production and Storage

January 19th - 24th Guillaume BERNARD-GRANGER, Anne LERICHE, Alexandre MAITRE, Claude ESTOURNES, Gilbert FANTOZZI, Jean-Marc HEINTZ, Marlu César STEIL

Towards a Theory for Typical-Case Algorithmic Hardness

January 27th - February 7th Bruno LOUREIRO, Vittorio ERBA

New Challenges in Turbulence Research VII

February 9th - 14th Nathanaël MACHICOANE, Adam CHEMINET, Mickaël BOURGOIN, Mathieu GIBERT

From Soft Matter to Biophysics 2025

February 16th - 21st Karen ALIM, Karin JACOBS, Martin LENZ, Hervé TURLIER

Quantum Dynamics and Spectroscopy of Functional Molecular

Materials and Biological Photosystems

February 23rd - March 7th Jérémie LÉONARD, Thomas RENGER

Therapeutic Ultrasound: from Theory to Practice

March 9th - 14th Jean-François AUBRY, Gail TER HAAR, Vera KHOKHLOVA

Parameterizations for Global Dynamical Models in Climatology, **Astrophysics and Planetology**

March 16th - 21st

Michael LE BARS, Daniel LECOANET, Stefan LLEWELLYN SMITH, Jérome NOIR, Tiffany SHAW

Lithium Niobate on Insulator Integrated Photonics from Fabrication to **Classical and Quantum Applications**

May 12th - 23rd Kamel BENCHEIKH, Andreas BOES, Rachel GRANGE, Arnan MITCHELL

Finite and Algorithmic Model Theory

May 25th - 30th Luc SEGOUFIN, Szymon TORUŃCZYK, Diego FIGUEIRA

Microwave Amplifiers in the Quantum Regime

June 1st - 6th

Anja METELMANN, Ioan POP, Nicolas ROCH, Gerhard KIRCHMAIR, Andrea GIACHERO, Martina ESPOSITO, Lukas GRÜNHAUPT, Sumedh MAHASHABDE, Luca PLANAT

Interfacial Soft Matter: Mechanics, Physical Chemistry and Interactions

June 8th - 13th Lionel BUREAU, Cécile COTTIN-BIZONNE, Benjamin CROSS, Vincent LADMIRAL

Physics of the TeV scale and Beyond the Standard Model (PhysTeV)

« New Horizons in Physics » June 16th - July 4th Cédric DELAUNAY, Emanuele RE

Summer School: The Dark Universe

July 7th - August 1st Philippe BRAX, Sandrine CODIS, Guilhem LAVAUX, Pauline ZARROUK

Summer School: Exact Solvability and Quantum Information August 4th - 29th

Stephane OUVRY, Tomaž PROSEN, Didina SERBAN, Masahito YAMAZAKI

Doctoral Training: Blaumann's Loop Quantum Gravity School

September 1st - 12th

Eugenio BIANCHI, Etera LIVINE, Carlo ROVELLI, Simone SPEZIALE, Francesca VIDOTTO

Contac-Terre: Imaginaries of Energy and Ecological Transition

March 23rd - 28th Aglaé JÉZÉQUEL, Davide FARANDA, Camille PARROD

Planet Mars – VI

March 30th - April 4th John CARTER, Olivier WITASSE, Colin WILSON, Christophe SOTIN

Feeling the Pull and the Pulse of Relativistic Magnetospheres

April 6th - 11th

Benoît CERUTTI, Benjamin CRINQUAND, Noémie GLOBUS, Claire GUÉPIN, Amir LEVINSON, Kyle PARFREY, Alexander PHILIPPOV

Third Town Hall KM3NeT Meeting: Connecting with the Astroparticle

Physics Community

April 13th - 18th Damien DORNIC, Giulia ILLUMINATI

Fault-Tolerant Quantum Computing: Theory and Current State of Play

April 20th - 25th Nicolas SANGOUARD, Jérémie GUILLAUD

Immunobiophysics: From Fundamental Physics to Understanding the **Immune Response - Third Edition**

April 27th - May 2nd Bebhinn TREANOR, Katelyn SPILLANE, Paolo PIEROBON, Jérémie ROSSY, Daan VORSELEN

Doctoral Training: SUCCESS-2025 - School on Ultraviolet and X-Ray **Spectroscopies of Correlated and Topological Electron Systems**

September 15th - 26th Andrés F. SANTANDER-SYRO, Silke BIERMANN, Patrick LE FÈVRE, Ralph CLAESSEN

Novel Phases, Superconductivity and Emergent Electronic Properties in Quantum Materials

September 28th - October 3rd Sébastien BURDIN, Elena HASSINGER, Marie-Aude MÉASSON, Pierre RODIÈRE, Joachim WOSNITZA, Gertrud ZWICKNAGL

LISA School for Early-Career Scientists

October 6th - 17th Jean-Baptiste BAYLE

Doctoral Training: Cold Atoms and Quantum Metrology: from Optomechanics to Tests of Fundamental Physics

October 20th - 31st

Marion DELEHAYE, Quentin GLORIEUX

CERN Theory Department Retreat

November 5th - 7th Michelangelo MANGANO

For more information, visit L'École de Physique des Houches' website :





