



ICMU

INTERNATIONAL CENTRE
FOR MATHEMATICS
IN UKRAINE

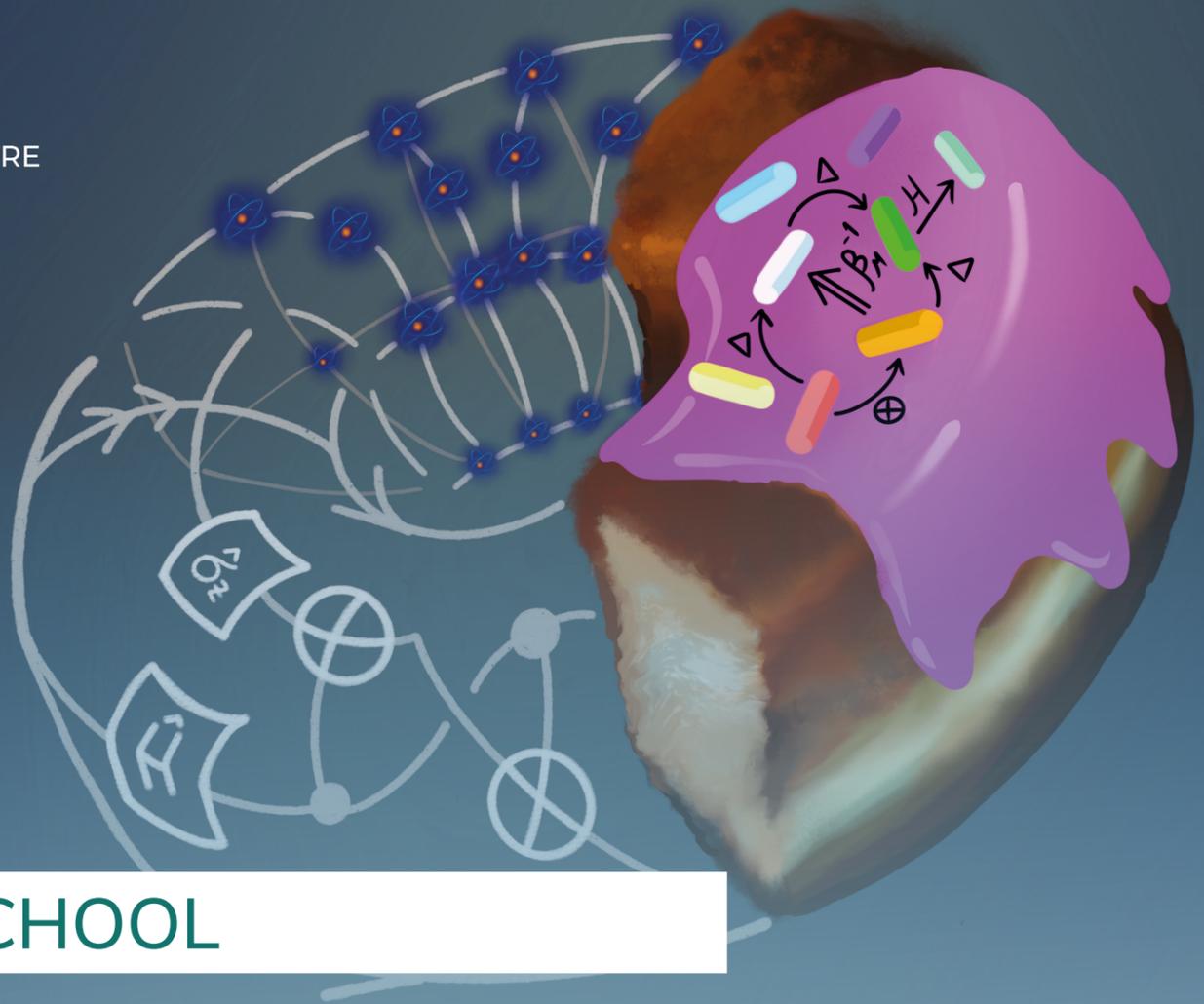


Illustration by Yevheniia Cheipeesh

ICMU WINTER SCHOOL

5 - 23 January 2026

MATHEMATICS OF QUANTUM MATTER

VENUE

ICMU Working Space, KSE Dragon Capital Building, Kyiv

This school explores the intersection of quantum information, condensed matter physics, and modern mathematics. It aims to provide advanced undergraduate and graduate students with a foundation for approaching quantum matter physics through connections with fields like topological field theory, homotopy theory, category theory, operator algebras, tensor networks, and complexity theory.

LECTURE SERIES

Operator algebras and topological phases

Corey JONES, *North Carolina State University*

Topological field theories

Vincentas MULEVICIUS, *University of Vienna*

Tensor networks

Norbert SCHUCH, *University of Vienna*

Computational aspects of fermionic quantum many-body systems

Barbara TERHAL, *QuTech & DIAM / TU Delft*

INVITED LECTURERS

Agnès BEAUDRY, *University of Colorado Boulder*

Nils CARQUEVILLE, *University of Vienna*

Margarita DAVYDOVA, *California Institute of Technology*

Pavel ETINGOF, *Massachusetts Institute of Technology*

Mykola IORGOV, *Bogolyubov Institute for Theoretical Physics of NASU*

Anton KAPUSTIN, *California Institute of Technology*

Sergiy MAKSYMENKO, *Institute of Mathematics of NASU / KSE*

Olexei MOTRUNICH, *California Institute of Technology*

Danylo YAKYMENKO, *Institute of Mathematics of NASU / KSE*

Yuri ZHURAVLEV, *Bogolyubov Institute for Theoretical Physics of NASU*

ORGANISERS

Lukas MUELLER, *Perimeter Institute*

Mykola SEMENYAKIN, *Perimeter Institute*

Alex TURZILLO, *University of Cambridge*



INFORMATION AND APPLICATION

ICMU.UA

deadline 15 October 2025

