

Online Focus Week on “Topological Orders and Higher Structures”
of the Thematic Programme

“Higher Structures and Field Theory”

August 2 - 7, 2020

organized by

Anton Alekseev (U Genève), Stefan Fredenhagen (U Vienna), Nicolai Reshetikhin (UC,
Berkeley), Thomas Strobl (U Lyon), Chenchang Zhu (U Göttingen)

• **Sunday, August 2nd, 2020**

18:00 – 18:30 **Zoom Testing**

• **Monday, August 3rd, 2020**

14:30 – 15:00 **Zoom Testing**

15:00 – 16:00 **Xiao-Gang Wen**

Topological order and higher category – a physical point of view, I (Introductory talk)

16:15 – 17:00 **Davide Gaiotto**

TBA

17:30 – 18:30 **Anton Kapustin**

From gapped phases of matter to Topological Quantum Field Theory and back again, I (Introductory talk)

18:30 – 19:30 **Breakout sections for the three speakers**

• **Tuesday, August 4th, 2020**

12:00 – 12:45 **Zheng-Cheng Gu (City U of Hong Kong)**

Construction and classification of symmetry protected topological phase in interacting fermion systems.

13:00 – 13:45 **Meng Cheng**

Fractonic topological phases: coupled layers and beyond

14:00 – 15:00 **Juven Wang and his postdoc**

Ultra Unification

15:00 – 16:00 **Breakout sections for these 4 speakers**

16:00 – 17:00 **Xiao-Gang Wen**

Topological order and higher category – a physical point of view, II

17:30 – 18:30 **Anton Kapustin**

From gapped phases of matter to Topological Quantum Field Theory and back again, II

18:30 – 19:30 **Breakout sections for these 2 speakers**

- **Wednesday, August 5th, 2020**

10:00 – 10:45 **David Reutter**

On fusion 2-categories

11:00 – 11:45 **Yin Tian**

The Drinfeld center of monoidal 2-categories in 3+1D Dijkgraaf-Witten Theory

11:45 – 12:45 **Breakout sections for these 2 speakers**

12:45 – 14:00 **Lunch Break**

14:00 – 14:45 **Clement Delcamp**

Excitations in strict 2-group higher gauge models of topological phases

15:00 – 15:45 **Alex Bullivant**

A tube algebra prospective on the higher quantum double

16:00 – 17:00 **Xiao-Gang Wen**

Topological order and higher category – a physical point of view, III

17:30 – 18:30 **Anton Kapustin**

From gapped phases of matter to Topological Quantum Field Theory and back again, III

18:30 – 19:30 **Breakout sections for these 4 speakers**

- **Thursday, August 6th, 2020**

14:00 – 14:45 **Yasu Kawahigashi**

Topological order, tensor networks and subfactors

15:00 – 15:45 **Jürgen Fuchs**

PEPS and bicategories

16:00 – 16:45 **Christoph Schweigert**

Bulk fields in conformal field theory

17:45 – 18:45 **Breakout sections for these 3 speakers**

- **Friday, August 7th, 2020**

15:00 – 15:45 **Claudia Scheimbauer**

TBA

16:00 – 16:45 **Theo Johnson-Fryd**

Algebraic definition of topological order

17:00 – 17:45 **Tian Lan (U Waterloo)**

Higher symmetry enriched topological phases

17:45 – 18:45 **Breakout sections for these 3 speakers**

All talks take place online! To attend, please register via this [link](#). The deadline for registration is two days before the event.