Workshop

"Gauge theories and spin systems: Yang-Mills theory, continuous symmetry, and disorder"

July 28 - August 1, 2025

organized by

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Time measurement: CEST

- **Monday, July 28**

08:30 - 09:15	*Arrival and Self-Registration*
09:15 - 09:20	*Welcome by HIM Director Karl-Theodor Sturm*
09:20 - 10:20	**Tyler Helmuth** *Continuous Symmetries and the Arboreal Gas*
10:20 - 11:00	*Coffee break*
11:00 - 12:00	**Ilya Chevyrev** *Observables and gauge covariant renormalisation of stochastic 3D Yang-Mills*
12:00 - 15:00	*Lunch break*
15:00 - 16:00	**Rongchan Zhu** *Makeenko-Migdal equations for 2D Yang–Mills: from lattice to continuum*
from 16:00 on	*Get-Together*

- **Tuesday, July 29**

09:20 - 10:20	**Ewain Gwynne** *Liouville quantum gravity with central charge in (1,25)*
10:20 - 11:00	*Group Photo and Coffee break*
11:00 - 12:00	**Paul Dario** *Delocalization for integer-valued height functions in the presence of a random disorder*
12:00 - 15:00	*Lunch break*
15:00 - 16:00	**Malek Abdesselam** *On correlation inequalities for non-Abelian spin systems and lattice gauge theories*
16:00 - 16:30	*Coffee break*

- **Wednesday, July 30**

09:20 - 10:20	**Marcin Lis** *The Ising magnetization field and the Gaussian free field*
10:20 - 11:00	*Coffee break*
11:00 - 12:00	**Federico Camia** *On the logarithmic CFT structure of 2D critical percolation*
12:00 - 15:00	*Lunch break*
15:00 - 16:00	**Free Afternoon**
16:00 - 16:30	*Coffee break*

- **Thursday, July 31**

09:20 - 10:20	**Xiangchan Zhu** *Φ_3^4 Theory from many-body quantum Gibbs states*
10:20 - 11:00	*Coffee break*
11:00 - 12:00	**Piet Lammers** *Towards GFF convergence for the six-vertex model*
12:00 - 15:00	*Lunch break*
15:00 - 16:00	**Sky Cao** *Expanded regimes of area law for lattice Yang-Mills theories*
16:00 - 16:30	*Coffee break*

- **Friday, August 1**

09:20 - 10:20	**Margherita Disertori** *An exact block-spin renormalization on the hierarchical non-linear super-symmetric hy perbolic sigma model*
10:20 - 11:00	*Coffee break*
11:00 - 12:00	**Florian Schweiger** *Delocalization for the solid-on-solid model and variants*
12:00 - 15:00	*Lunch break*
15:00 - 16:00	**Jinwoo Sung** *Random walk reflected off of infinity*
16:00 - 16:30	*Coffee break*