



# Higher Structures in Holomorphic and Topological Field Theory

*A conference of the ERC Grant project  
QUantum Algebraic Structures In Field Theories  
(QUASIFT)*



European Research Council  
Established by the European Commission

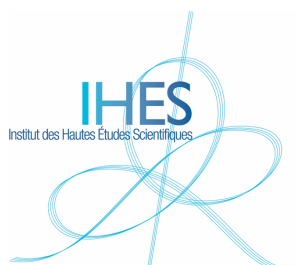
*Marilyn and James Simons Conference Center*

## Monday 14 January, 2019

- 10:00 *Registration of the participants and welcome coffee*
- 10:30 – 11:30 David Ayala (University of Montana)  
Factorization Homology
- 11:30 *Coffee break*
- 12:00 - 1:00 Claudia Scheimbauer (NTNU Trondheim)  
Relative field theories from relative dualizability
- 1:00 - 2:30 *Lunch*
- 2:30 – 3.30 Owen Gwilliam (University of Massachusetts)  
Symmetries of holomorphic QFT and the higher dimensional Kac-Moody algebras
- 3:30 – 4.30 *Coffee break*
- 4:30 – 5:30 Brian Williams (Northeastern University)  
A relationship between higher chiral algebras and gauge theory

## Tuesday 15 January, 2019

- 10:00 *Welcome coffee*
- 10:30 – 11:30 Emily Cliff (University of Illinois)  
Chiral algebras, factorization algebras, and Borchers' "singular commutative rings" approach to vertex algebras
- 11:30 *Coffee break*
- 12:00 - 1:00 Miroslav Rapčák (Perimeter Institute)  
Vertex Algebras for Divisors in Toric 3-folds
- 1:00 - 2:30 *Lunch*
- 2:30 – 3.30 Jie Ren (IHES)  
2 Calabi-Yau categories and motivic Donaldson-Thomas series
- 3:30 – 4.30 *Coffee break*
- 4:30 – 5:30 Alexander Braverman (University of Toronto)  
Local geometric Langlands correspondence and Lie superalgebras



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## Wednesday 16 January, 2019

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|---------------|---|
| 10.00         | <i>Welcome coffee</i>   |
| 10.30 – 11.30 | Philsang Yoo (Yale University)<br>Symplectic Duality and Geometric Langlands Duality                |
| 11.30         | <i>Coffee break</i>   |
| 12.00 – 1.00  | Justin Hilburn (University of Pennsylvania)<br>Symplectic Duality and Geometric Langlands Duality   |
| 1.00 – 2.30   | <i>Lunch</i>  |
| 2.30 – 3.00   | Satoshi Nawata (Fudan University)<br>Geometric representation theory of double affine Hecke algebra |
| 3.00 – 3.30   | Tim Weelinck (University of Edinburgh)<br>Equivariant factorization homology and quantum groups     |
| 3.30 – 4.30   | <i>Coffee break</i>   |
| 4.30 – 5.00   | Kursat Sozer (Indiana University)<br>Extended HFTs in dimension 2                                   |

## Thursday 17 January, 2019

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|---------------|---|
| 10.00         | <i>Welcome coffee</i>   |
| 10.30 – 11.30 | Junya Yagi (University of Warsaw)<br>String theory, gauge theories and integrable systems     |
| 11.30         | <i>Coffee break</i>   |
| 12.00 – 1.00  | David Jordan (University of Edinburgh)<br>Quantum cluster algebras via factorization homology |
| 1.00 – 2.30   | <i>Lunch</i>  |
| 2.30 – 3.30   | Damien Calaque (Université de Montpellier)<br>Vertex models and $n$ -algebras                 |
| 3.30 – 4.30   | <i>Coffee break</i>   |
| 4.30 – 5.30   | Olivier Schiffmann (Université Paris-Sud)<br>Cohomological Hall algebras associated to curves |
| 5.30          | <i>Cocktail</i>   |



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## Friday 18 January, 2019

10.00	<i>Welcome coffee</i>
10.30 – 11.30	Pavel Safronov (University of Zurich) Courant sigma-models and representations of chiral Lie algebroids
11.30	<i>Coffee break</i>
12.00 – 1.00	Nikita Nekrasov (SCGP, Stony Brook) Some applications of defects in supersymmetric gauge theory
1.00 – 2.30	<i>Lunch</i>

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