

KITP Conference: Gravity from algebra: modern field theory methods for holography

(Jan 23-26, 2023)

Coordinators: Ofer Aharony, Agnese Bissi, Leonardo Rastelli, and Alexander Zhiboedov

Monday, Jan 23, 2023

8:50am Lars Bildsten (KITP)	Welcome
9:00am Ibrahim Bah (Johns Hopkins)	Non-invertible symmetry, holography, and branes[Video][CC]
9:45am Lorenz Eberhardt (IAS)	3d Gravity and Teichmueller TQFT[Slides][Video][CC]
10:30am	Morning Break
11:00am Shota Komatsu (CERN)	Non-holographic holography[Video][CC]
11:45am Natalie Paquette (Washington)	Top-down topological holography and twists on twistor space[Video][CC]
12:30pm	Lunch Break
2:00pm Thomas Hartman (Cornell)	Holographic tensor networks in 2d CFT[Slides][Video][CC]
2:45pm Kristan Jensen (Victoria U)	Isometric evolution in de Sitter gravity[Video][CC]
3:30pm	Afternoon Break
4:00pm Shai Chester (Harvard)	Scale Separation and the Conformal Bootstrap[Slides][Video][CC]
4:45pm Francesco Aprile (U Complutense)	Loops and Strings in AdS₅×S⁵[Video][CC]
5:30pm	SHUTTLE TO BWSCI

Tuesday, Jan 24, 2023

9:00am Shiraz Minwalla (TIFR)	Crossing Symmetry in Matter Chern Smons theories at finite N and k[Video][CC]
9:45am Sameer Murthy (Kings College London)	Finite-N holography: supersymmetry and modularity in gravity[Video][CC]
10:30am	Morning Break
11:00am Alessandro Tomasiello (UNIMIB)	Bounds on spin-two KK masses[Slides][Video][CC]
11:45am Thomas Van Riet (KU Leuven)	Extreme AdS/CFT?[Slides][Video][CC]
12:30pm	Lunch Break
2:00pm Alejandra Castro (Cambridge)	Designing Gravitational Theories via Symmetric Product Orbifolds[Slides][Video][CC]
2:45pm Nikolay Bobev (KU Leuven)	Large N Partition Functions, Holography, and Black Holes[Slides][Video][CC]
3:30pm	Afternoon Break
4:00pm Veronika Hubeny (UC Davis)	Towards characterizing the holographic entropy cone[Slides][Video][CC]
4:45pm Rajesh Gopakumar (ICTS)	What we can learn from being Free and Tensionless[Slides][Video][CC]
5:30pm	RECEPTION
6:00pm	SPECIAL EVENTS DINNER
8:00pm	SHUTTLE TO BWSCI

Wednesday, Jan 25, 2023

9:00am Irene Valenzuela (CERN)	Reducing the Distance between the Swampland and the Bootstrap[Video][CC]
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9:45am Eric Perlmutter (IPhT-CEA Saclay) [Holographic Prescriptions for Scale Separation Anxiety\[Video\]\[CC\]](#)

10:30am **Morning Break**

11:00am Pedro Vieira (Perimeter/ICTP-SAIFR) [Huge Operators in Holography - From Bananas to Doors\[Video\]](#)

11:45am Jorrit Kruthoff (Stanford) [The power of time\[Video\]](#)

12:30pm **Lunch Break**

2:00pm Douglas Stanford (Stanford) [Fake geometry from algebra\[Video\]](#)

2:45pm Julian Sonner (Geneva) [Matrix models for ETH and random CFT\[Slides\]\[Video\]\[CC\]](#)

3:30pm **Afternoon Break**

4:00pm Henry Maxfield (Stanford) [Non-relativistic physics in AdS and its CFT dual\[Video\]\[CC\]](#)

4:45pm Victor Luca Iliesiu (Stanford) [Indices from the gravitational path integral\[Video\]\[CC\]](#)

5:30pm **RECEPTION**

6:00pm **SPECIAL EVENTS DINNER**

8:00pm **SHUTTLE TO BWSCI**

Thursday, Jan 26, 2023

9:00am Alex Belin (U Milan) [Holographic CFTs and Strongly Coupled AdS Matter\[Video\]\[CC\]](#)

9:45am Clifford Johnson (USC) [The Distribution of Ground States in JT Gravity from Random Matrix Models.\[Slides\]\[Video\]\[CC\]](#)

10:30am **Morning Break**

11:00am Clay Córdova (U Chicago) [Comments on Symmetry Breaking and Weak Gravity\[Video\]\[CC\]](#)

11:45am David Simmons Duffin (Caltech) [CFT, Spin's Statistics, and All That\[Video\]](#)

12:30pm **Lunch Break**

2:00pm Andrea Puhm (Polytechnique) [Celestial imprint of bulk geometries\[Video\]](#)

2:45pm Simon Caron Huot (McGill U) [An eye for the bulk\[Slides\]\[Video\]\[CC\]](#)

3:30pm **CONFERENCE END) SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location (See Registration Desk BEFORE THURSDAY to sign up.)**