

# TASI 2025

## Threads in a Theory Tapestry

University of Colorado Boulder | June 2–27, 2025

ORGANIZERS: CLAY CÓRDOVA (CHICAGO), DAVID POLAND (YALE), SASHA ZHIBOEDOV (CERN)

### Lecturers and topics

**SIMON CARON-HUOT** (MCGILL) | Causality Constraints on Effective Theories and Gravity

**CLAY CÓRDOVA** (CHICAGO) | The Die is Cast: Non-Invertible Symmetry

**NATHANIEL CRAIG** (UC SANTA BARBARA) | The Formal Frontiers of Particle Physics

**LUCA DELAGRETAZ** (CHICAGO) | Thermal Dynamics in QFT

**NETTA ENGELHARDT** (MIT) | Black Hole Information Behind and Beyond the Horizon

**TOM FAULKNER** (UIUC) | Operator Algebras: from Quantum Information to Quantum Gravity

**TOM HARTMAN** (CORNELL) | Lorentzian Methods in CFT and QFT

**LUCA ILIESIU** (UC BERKELEY) | Advances in Black Hole Thermodynamics

**ZOHAR KOMARGODSKI** (STONY BROOK) | Charged Up: Semi-Classical Limits and Effective Field Theories

**HO-TAT LAM** (MIT) | Higher-Form Symmetry and Applications

**HENRY LIN** (STANFORD/PRINCETON) | BFSS Matrix Theory from a Modern Viewpoint

**JUAN MALDACENA** (IAS) | Aspects of Quantum Gravity in de Sitter and Inflation

**LIAM MCALLISTER** (CORNELL) | de Sitter Vacua

**SEBASTIAN MIZERA** (PRINCETON) | Causality in Quantum Field Theory

**DAVID POLAND** (YALE) | Frontiers of the Conformal Bootstrap

**ANA-MARIA RACLARIU** (KING'S COLLEGE LONDON) | Aspects of Holography in Asymptotically Flat Spacetimes

**IRENE VALENZUELA** (CERN/IFT MADRID) | A Modern Perspective on the Swampland Distance Conjecture

**SASHA ZHIBOEDOV** (CERN) | The S-Matrix Bootstrap

Applications and information are available at  
[colorado.edu/physics/TASI](https://colorado.edu/physics/TASI) or email [TASI@colorado.edu](mailto:TASI@colorado.edu).

**Deadline for online application  
submissions: March 1, 2025**

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