

Holographic applications: from Quantum Realms to the Big Bang



Report of Contributions

Contribution ID: 29

Type: **not specified**

Holographic QCD (I)

Saturday, 12 July 2025 09:00 (1h 10m)

Presenter: JARVINEN, Matti (APCTP)

Contribution ID: **30**

Type: **not specified**

Machine learning holographic QCD (I)

Saturday, 12 July 2025 10:40 (1h 10m)

Presenter: HASHIMOTO, Koji (Kyoto University)

Contribution ID: 31

Type: **not specified**

Machine learning holographic QCD (II)

Saturday, 12 July 2025 16:00 (1h 10m)

Presenter: HASHIMOTO, Koji (Kyoto University)

Contribution ID: 32

Type: **not specified**

Machine learning holographic QCD (I)

Presenter: HASHIMOTO, Koji (Kyoto University)

Session Classification: Plenary Session

Contribution ID: 33

Type: **not specified**

Holographic QCD (II)

Saturday, 12 July 2025 14:30 (1h 10m)

Presenter: JARVINEN, Matti (APCTP)

Contribution ID: 34

Type: **not specified**

Neural Network for Holographic QCD

Saturday, 12 July 2025 17:30 (20 minutes)

Presenter: ZENG, Hong-an (jlu)

Session Classification: Plenary Talk

Contribution ID: 35

Type: **not specified**

Gravitational waves from cosmological chiral phase transitions in soft-wall AdS/QCD

Saturday, 12 July 2025 17:50 (20 minutes)

Presenter: CHEN, Yidian (Hangzhou Normal University)

Session Classification: Plenary Talk

Contribution ID: 36

Type: **not specified**

Applications of WKB analysis in bottom-up holographic QCD models

Saturday, 12 July 2025 18:10 (20 minutes)

Presenter: MARTIN-CONTRERAS, Miguel Angel (University of South China)

Session Classification: Plenary Talk

Contribution ID: 37

Type: **not specified**

Effective theories for strongly-coupled phases of matter with gapped excitations (I)

Sunday, 13 July 2025 09:00 (1h 10m)

Presenter: GOUTÉRAUX, Blaise (CPHT, CNRS)

Contribution ID: **38**

Type: **not specified**

Introduction to pseudospectra and their applications in Holography (I)

Sunday, 13 July 2025 10:40 (1h 10m)

Presenter: LANDSTEINER, Karl (IFT Madrid)

Contribution ID: 39

Type: **not specified**

Effective theories for strongly-coupled phases of matter with gapped excitations (II)

Sunday, 13 July 2025 14:30 (1h 10m)

Presenter: GOUTÉRAUX, Blaise (CPHT, CNRS)

Contribution ID: 40

Type: **not specified**

Introduction to pseudospectra and their applications in Holography (II)

Sunday, 13 July 2025 16:00 (1h 10m)

Presenter: LANDSTEINER, Karl (IFT Madrid)

Contribution ID: 41

Type: **not specified**

D-commuting SYK model: building quantum chaos from integrable blocks

Sunday, 13 July 2025 17:30 (20 minutes)

Presenter: LIN, Han (UCAS)

Session Classification: Plenary Talk

Contribution ID: 42

Type: **not specified**

Quantum Corrections in the Low-Temperature Fluid/Gravity Correspondence

Sunday, 13 July 2025 17:50 (20 minutes)

Presenter: YUE, Congyuan (ICTP-AP, UCAS)

Session Classification: Plenary Talk

Contribution ID: 43

Type: **not specified**

Gluon polarization contribution to the spin alignment of vector mesons from holography

Presenter: AHMED, HIWA (University of Chinese Academy of Sciences)

Session Classification: Plenary Talk

Contribution ID: 44

Type: **not specified**

Holographic QFTs on constant curvature manifolds and phase transitions

Monday, 14 July 2025 08:30 (35 minutes)

Presenter: KIRITSIS, Elias (APC and UoC)

Session Classification: Plenary Talk

Contribution ID: 45

Type: **not specified**

Locating the QCD critical point using neutron-star observations

Monday, 14 July 2025 09:05 (35 minutes)

Presenter: JOKELA, Niko (University of Helsinki)

Session Classification: Plenary Talk

Contribution ID: 46

Type: **not specified**

Quantum-Gravity-Corrected Wilson Loop Correlators and Super-Yang-Mills Theory at Infrared

Monday, 14 July 2025 10:10 (35 minutes)

Presenter: NIAN, Jun (ICTP-AP, UCAS)

Session Classification: Plenary Talk

Contribution ID: 47

Type: **not specified**

Quantum critical phenomenon by holography

Monday, 14 July 2025 10:45 (35 minutes)

Presenter: LING, Yi (IHEP, CAS)

Session Classification: Plenary Talk

Contribution ID: 48

Type: **not specified**

Composite vortex in holographic binary superfluids

Monday, 14 July 2025 11:20 (20 minutes)

Presenter: AN, Yu-Ping (ITP, CAS)

Session Classification: Pleneray Talk

Contribution ID: 49

Type: **not specified**

Vortex shedding patterns in holographic

Monday, 14 July 2025 11:40 (20 minutes)

Presenter: YANG, Peng (Shanghai Jiao Tong university)

Session Classification: Pleneray Talk

Contribution ID: 50

Type: **not specified**

QCD matter under extreme conditions

Monday, 14 July 2025 14:00 (35 minutes)

Presenter: HOU, Defu (CCNU)

Session Classification: Plenary Talk

Contribution ID: 51

Type: **not specified**

Spin polarization in off-equilibrium medium at weak and strong coupling

Monday, 14 July 2025 14:35 (35 minutes)

Presenter: LIN, Shu (Sun Yat-Sen University)

Session Classification: Plenary Talk

Contribution ID: 52

Type: **not specified**

Precision tests of string theory

Monday, 14 July 2025 15:40 (35 minutes)

Presenter: PANG, Yi (Tianjin University)

Session Classification: Plenary Talk

Contribution ID: 53

Type: **not specified**

The spectral duality relation (online)

Monday, 14 July 2025 16:15 (35 minutes)

Presenter: GROZDANOV, Saso (University of Edinburgh)

Session Classification: Plenary Talk

Contribution ID: 54

Type: **not specified**

Hydrodynamics with multiple charges and holography(online)

Monday, 14 July 2025 17:20 (35 minutes)

Presenter: STARINETS, Andrei (Oxford University)

Session Classification: Plenary Talk

Contribution ID: 55

Type: **not specified**

Far From Equilibrium Physics in Finite Size System

Monday, 14 July 2025 17:55 (20 minutes)

Presenter: SUN, HaoTian (Beihang university)

Session Classification: Pleneray Talk

Contribution ID: 56

Type: **not specified**

Holographic study of quark matter properties and QCD phase diagram

Monday, 14 July 2025 18:15 (20 minutes)

Presenter: LI, Zhibin (Zhengzhou University)

Session Classification: Plenary Talk

Contribution ID: 57

Type: **not specified**

Near-extremal holographic charge correlators

Tuesday, 15 July 2025 08:30 (35 minutes)

Presenter: GOUTÉRAUX, Blaise (CPHT, CNRS)

Session Classification: Plenary Talk

Contribution ID: 58

Type: **not specified**

Non-hydrodynamics from hidden symmetry

Tuesday, 15 July 2025 09:05 (35 minutes)

Presenter: YIN, Yi (The Chinese University of Hong Kong, Shenzhen)

Session Classification: Plenary Talk

Contribution ID: 59

Type: **not specified**

Mass and Isospin Breaking Effects in Holographic QCD

Tuesday, 15 July 2025 10:10 (35 minutes)

Presenter: GUDNASON, Sven Bjarke (Henan University)

Session Classification: Plenary Talk

Contribution ID: 60

Type: **not specified**

ER=EPR and Strange Metal from the quantum Entanglement

Tuesday, 15 July 2025 10:45 (35 minutes)

Presenter: SIN, Sang-Jin (Hanyang University)

Session Classification: Plenary Talk

Contribution ID: **61**

Type: **not specified**

Unique SYK-rised models of Strange Metals

Tuesday, 15 July 2025 11:20 (20 minutes)

Presenter: WANG, Yili (Hanyang University)

Session Classification: Pleneray Talk

Contribution ID: 62

Type: **not specified**

ϕ^4 Loops in AdS3/CFT2

Tuesday, 15 July 2025 11:40 (20 minutes)

Presenter: 肖, 炜辰

Session Classification: Plenary Talk

Contribution ID: 63

Type: **not specified**

Connecting boundary entropy and effective central charge at interfaces

Tuesday, 15 July 2025 14:00 (35 minutes)

Presenter: CARLOS , Hoyos (ICTEA)

Session Classification: Plenary Talk

Contribution ID: 64

Type: **not specified**

The D-brane cylinder amplitude and T-duality

Tuesday, 15 July 2025 14:35 (35 minutes)

Presenter: LU, Jianxin (USTC)

Session Classification: Plenary Talk

Contribution ID: 65

Type: **not specified**

Comments on quantum chaos and complexity

Tuesday, 15 July 2025 15:40 (35 minutes)

Presenter: KIM, Keun-Young (Gwangju Institute of Science and Technology)

Session Classification: Plenary Talk

Contribution ID: 66

Type: **not specified**

Resurgence and non-perturbativ effects in \overline{TT} deformed CFTs

Tuesday, 15 July 2025 16:15 (35 minutes)

Presenter: WANG, Huajia (UCAS)

Session Classification: Plenary Talk

Contribution ID: 67

Type: **not specified**

Holographic 3D quantum turbulence

Tuesday, 15 July 2025 16:50 (35 minutes)

Presenter: ZENG, Hua Bi (Hainan University)

Session Classification: Pleneray Talk

Contribution ID: 68

Type: **not specified**

Holographic Applications on Quark Stars and Black Holes

Tuesday, 15 July 2025 18:00 (20 minutes)

Presenter: ZHANG, Kilar (Shanghai University)

Session Classification: Plenary Talk

Contribution ID: 69

Type: **not specified**

Bubble dynamics in holographic superfluids with first order phase transition

Tuesday, 15 July 2025 18:20 (20 minutes)

Presenter: JIN, Zhenhan (ITP, CAS)

Session Classification: Plenary Talk

Contribution ID: 70

Type: **not specified**

Holographic bubble nucleation in astrophysics or the early universe

Wednesday, 16 July 2025 08:30 (35 minutes)

Presenter: VAN DER SCHEE, Wilke (CERN / Utrecht University)

Session Classification: Plenary Talk

Contribution ID: 71

Type: **not specified**

Schwinger-Keldysh holography: hydrodynamics and beyond

Wednesday, 16 July 2025 09:05 (35 minutes)

Presenter: BU, Yanyan (Harbin Institute of Technology)

Session Classification: Plenary Talk

Contribution ID: 72

Type: **not specified**

Pole dynamics in holographic thermal correlators

Wednesday, 16 July 2025 10:10 (35 minutes)

Presenter: REN, Jie (Sun Yat-sen University)

Session Classification: Plenary Talk

Contribution ID: 73

Type: **not specified**

Holographic entanglement entropy inequalities in multipartite systems

Wednesday, 16 July 2025 10:45 (35 minutes)

Presenter: YANG, Yi

Session Classification: Plenary Talk

Contribution ID: 74

Type: **not specified**

Chiral phase transition from effective field theory and holography

Wednesday, 16 July 2025 11:20 (20 minutes)

Presenter: YANG, Zexin (School of Physics, Harbin Institute of Technology, Harbin 150001, China)

Session Classification: Pleneray Talk

Contribution ID: 75

Type: **not specified**

Magnetic field-driven quantum criticality at strong coupling

Wednesday, 16 July 2025 11:40 (20 minutes)

Presenter: ZHAO, Jun-Kun (ITP, CAS)

Session Classification: Plenary Talk

Contribution ID: 76

Type: **not specified**

Holographic Page Curve in SYK model with n-Replica Wormholes

Thursday, 17 July 2025 08:30 (35 minutes)

Presenter: GE, Xianhui (Shanghai University)

Session Classification: Plenary Talk

Contribution ID: 77

Type: **not specified**

QCD phase structure from holography

Thursday, 17 July 2025 09:05 (35 minutes)

Presenter: FANG, Zhen (Hunan University)

Session Classification: Plenary Talk

Contribution ID: 78

Type: **not specified**

A surface growth approach for bulk reconstruction and \overline{TT} deformation

Thursday, 17 July 2025 10:10 (35 minutes)

Presenter: SUN, Jia-Rui (Sun Yat-sen University)

Session Classification: Plenary Talk

Contribution ID: 79

Type: **not specified**

Symmetry-Resolved Entanglement in AdS & BCFT

Thursday, 17 July 2025 10:45 (35 minutes)

Presenter: MEYER, Rene (Julius-Maximilians-Universität Würzburg)

Session Classification: Pleneray Talk

Contribution ID: 80

Type: **not specified**

Softening holographic nuclear matter with multi-jump solutions

Thursday, 17 July 2025 11:20 (20 minutes)

Presenter: PAPADOPOULOS, Orestis (University of Southampton)

Session Classification: Plenary Talk

Contribution ID: **81**

Type: **not specified**

Bulk Spacetime Encoding via Boundary Ambiguities

Thursday, 17 July 2025 11:40 (20 minutes)

Presenter: LU, Zhenkang (Shanghai University)

Session Classification: Pleneray Talk

Contribution ID: 82

Type: **not specified**

Unify the QGP transports and equations of state in a holographic QCD Model

Thursday, 17 July 2025 14:00 (35 minutes)

Presenter: HE, Song (Ningbo University)

Session Classification: Plenary Talk

Contribution ID: 83

Type: **not specified**

Isospin Asymmetry and Neutron Stars in V-QCD

Thursday, 17 July 2025 14:35 (35 minutes)

Presenter: BARTOLINI, Lorenzo

Session Classification: Plenary Talk

Contribution ID: 84

Type: **not specified**

Gravity Dual of Network and Entanglement

Thursday, 17 July 2025 15:40 (35 minutes)

Presenter: MIAO, Rongxin (Sun Yat-sen University)

Session Classification: Pleneray Talk

Contribution ID: 85

Type: **not specified**

Holographic multipartite entanglement from upper bound configurations of entanglement entropy combinations

Thursday, 17 July 2025 16:15 (35 minutes)

Presenter: SUN, Yawen (UCAS)

Session Classification: Plenary Talk

Contribution ID: 86

Type: **not specified**

Quasinormal modes: from holographic lessons to nonthermal fixed points (online)

Thursday, 17 July 2025 16:50 (35 minutes)

Presenter: HELLER, Michal P. (Gent University)

Session Classification: Plenary Talk

Contribution ID: 87

Type: **not specified**

Celestial holography of massive amplitudes in 4d and 2d

Thursday, 17 July 2025 18:00 (20 minutes)

Presenter: FAN, Wei (Jiangsu University of Science and Technology)

Session Classification: Pleneray Talk

Contribution ID: **88**

Type: **not specified**

Holographic Weyl Anomaly in 8d from General Higher Curvature Gravity

Thursday, 17 July 2025 18:20 (20 minutes)

Presenter: CHEN, Feiyu (Tianjin University)

Session Classification: Plenary Talk

Contribution ID: 89

Type: **not specified**

Exploring Cosmic Censorship in a Holographic Collider

Friday, 18 July 2025 08:30 (35 minutes)

Presenter: SUBILS, Javier (Utrecht University)

Session Classification: Plenary Talk

Contribution ID: 90

Type: **not specified**

Nucleon gravitational form factors in AdS/QCD

Friday, 18 July 2025 09:05 (35 minutes)

Presenter: LI, Yang (University of Science and Technology of China)

Session Classification: Plenary Talk

Contribution ID: **91**

Type: **not specified**

Developments on the holographic superconductor and superfluids

Friday, 18 July 2025 10:10 (35 minutes)

Presenter: PAN, Qiyuan (Hunan Normal University)

Session Classification: Plenary Talk

Contribution ID: 92

Type: **not specified**

Applications of numerical relativity in holography

Friday, 18 July 2025 10:45 (35 minutes)

Presenter: TIAN, Yu (UCAS)

Session Classification: Plenary Talk

Contribution ID: 93

Type: **not specified**

The influence of Wilson lines on heavy quark anti-quark potential and mass

Friday, 18 July 2025 11:20 (20 minutes)

Presenter: FUJITA, MITSUTOSHI

Session Classification: Plenary Talk

Contribution ID: 94

Type: **not specified**

Bayesian Inference of the Critical Endpoint in 2+1-Flavor System from Holographic QCD

Friday, 18 July 2025 11:40 (20 minutes)

Presenter: ZHU, Liqiang (Central China Normal University)

Session Classification: Plenary Talk

Contribution ID: 95

Type: **not specified**

Dynamics of chiral phase transition in the soft-wall AdS/QCD

Friday, 18 July 2025 14:00 (35 minutes)

Presenter: LI, Danning (Jinan University)

Session Classification: Plenary Talk

Contribution ID: 96

Type: **not specified**

Holographic non-conformal interfaces

Friday, 18 July 2025 14:35 (35 minutes)

Presenter: LIU, Yan (Beihang University)

Session Classification: Plenary Talk

Contribution ID: 97

Type: **not specified**

vortex dynamics on the sphere

Friday, 18 July 2025 15:40 (35 minutes)

Presenter: ZHANG, Hongbao (Beijing Normal University)

Session Classification: Pleneray Talk

Contribution ID: 98

Type: **not specified**

Holographic Kibble-Zurek Mechanism with Discrete Symmetry

Friday, 18 July 2025 16:15 (35 minutes)

Presenter: ZHANG, Haiqing (Beihang University)

Session Classification: Plenary Talk

Contribution ID: 99

Type: **not specified**

Universal Time Evolution of Holographic Complexity

Friday, 18 July 2025 16:50 (35 minutes)

Presenter: RUAN, Shan-Ming (Peking University)

Session Classification: Plenary Talk

Contribution ID: **100**

Type: **not specified**

Holographic Calculation of Thermal Photon Emission Rate and Electric Conductivity in QGP

Friday, 18 July 2025 18:00 (20 minutes)

Presenter: SI, Yiping

Session Classification: Plenary Talk

Contribution ID: **101**

Type: **not specified**

Clarifying the interior dynamics of charged black holes

Sunday, 13 July 2025 18:10 (20 minutes)

Presenter: MEINING, Duan (ITP, UCAS)

Session Classification: Plenary Talk