

Effective Theories for Nonperturbative Physics

Report of Contributions

Contribution ID: 1

Type: **not specified**

Informal Gathering in R1

Thursday, 7 August 2025 18:00 (2 hours)

Contribution ID: 2

Type: **not specified**

Informal Gathering in R1

Thursday, 14 August 2025 18:00 (2 hours)

Contribution ID: 3

Type: **not specified**

Talk: Geometry in SMEFT, Amplitudes, and a Shortcut to Normal Coordinates (30'+15')

Friday, 8 August 2025 14:00 (45 minutes)

Presenter: WEST, Mia Robin Byron (University of Florida)

Contribution ID: 4

Type: **not specified**

Kara Farnsworth - Hamiltonian Truncation and Effective Field Theory (45'+15')

Session Classification: Review

Contribution ID: 5

Type: **not specified**

Review talk - Instantons, monopoles and charge quantisation in the SM (45'+15')

Tuesday, 5 August 2025 14:00 (1 hour)

Presenter: KHOZE, Valentin (IPPP Durham)

Contribution ID: 6

Type: **not specified**

Talk - Coset Insights into Hydrodynamic Effective Theory (30'+15')

Wednesday, 6 August 2025 11:15 (45 minutes)

Presenter: GOMES, Andrew Wesley (EPFL)

Contribution ID: 7

Type: **not specified**

Talk.- New insights from the θ -vacua of the Standard Model (30'+15')

Thursday, 7 August 2025 10:00 (45 minutes)

Presenter: SAKHELASHVILI, Otari (Sydney University)

Contribution ID: 8

Type: **not specified**

Review talk - Unitarity constraints on Effective Field Theories (45'+15')

Thursday, 7 August 2025 14:00 (1 hour)

Presenter: TOKAREVA, Anna (Hangzhou Institute for Advanced Study & ICTP-AP Centre Beijing/Hangzhou)

Contribution ID: 9

Type: **not specified**

**Talk - On Thermal Resummation (and possibly also
some disconnected discussion on dark glueball
production) (30'+15')**

Friday, 8 August 2025 10:00 (45 minutes)

Presenter: CURTIN, David Richard (University of Toronto)

Contribution ID: **10**

Type: **not specified**

Talk: Álvaro Pastor Gutiérrez - IR phases of purely chiral-gauge theories (30'+15')

Monday, 11 August 2025 10:00 (45 minutes)

Presenter: PASTOR GUTIERREZ, Alvaro

Contribution ID: 11

Type: **not specified**

Review talk - The steadyon picture - generalizing the instanton to excited state tunneling (45'+15')

Monday, 11 August 2025 14:00 (1 hour)

Presenter: STEINGASSER, Thomas (MIT, Harvard University)

Contribution ID: 12

Type: **not specified**

Review talk: Hamiltonian Truncation and Effective Field Theory (45'+15')

Monday, 4 August 2025 14:00 (1 hour)

Presenter: FARNSWORTH, Kara Michelle (Universite de Geneve (CH))

Contribution ID: 13

Type: **not specified**

Talk - Broader states in gauge theories, with application to the strong cp problem and electromagnetism (30'+15')

Tuesday, 5 August 2025 10:00 (45 minutes)

Presenter: MELIA, Tom (Kavli IPMU)

Contribution ID: 14

Type: **not specified**

Talk - Critical fermions from perturbation theory (30'+15')

Tuesday, 12 August 2025 10:00 (45 minutes)

Presenter: CRESSWELL-HOGG, Charlie (University of Sussex)

Contribution ID: 15

Type: **not specified**

Review talk: Truncating towards QCD & Phase space and on-shell geometry (45'+15')

Tuesday, 12 August 2025 14:00 (1 hour)

Presenter: HENNING, Brian (KITP/UCSB)

Contribution ID: **16**

Type: **not specified**

Talk - Bubble wall dynamics from nonequilibrium QFT (30'+15')

Wednesday, 13 August 2025 10:00 (45 minutes)

Presenter: CAROSI, Matthias

Contribution ID: 17

Type: **not specified**

Talk - Quantum Simulation of Scattering using Hamiltonian Truncation (30'+15')

Thursday, 14 August 2025 10:00 (45 minutes)

Presenter: INGOLDBY, James Allan (IPPP, Durham University)

Contribution ID: **18**

Type: **not specified**

Review talk - Synergies between quantum technologies and high-energy physics (45'+15')

Thursday, 14 August 2025 14:00 (1 hour)

Presenter: RICO ORTEGA, Enrique (CERN)

Contribution ID: **19**

Type: **not specified**

Talk - Holographic vacuum misalignment (30'+15')

Friday, 15 August 2025 10:00 (45 minutes)

Presenter: FATEMIABHARI, Ali (Swansea University and ITMP (MSU))

Contribution ID: 20

Type: **not specified**

TH Colloquium - Recent developments on integrable QFTs at finite density

Wednesday, 6 August 2025 14:00 (1 hour)

Presenter: SERONE, Marco

Contribution ID: 21

Type: **not specified**

TH Colloquium - Exploring the Hilbert Space of Quantum Field Theory with Hamiltonian Truncation

Wednesday, 13 August 2025 14:00 (1 hour)

please refer to <https://indico.cern.ch/event/1524832>

Presenter: LUTY, Markus (University of California Davis)

Contribution ID: 22

Type: **not specified**

Nils Wagner – Establishing the relationship between instantons and resonance states

Monday, 11 August 2025 15:30 (45 minutes)

Contribution ID: 23

Type: **not specified**

Giulia Isabella - 30' + 15'

Contribution ID: 24

Type: **not specified**

Giulia Isabella - Analyticity vs. Causality: Surprises in Classical Wave Scattering (30'+15')

Wednesday, 13 August 2025 15:30 (45 minutes)