

Session Program

1-5 Sept 2026

**13th International Conference on the Exact
Renormalization Group 2026 (ERG2026)**

Parallel Session

University of Sussex

Tuesday 1 September

13:40

Parallel Session: Room 1

Session | **Location:** Jubilee Building, Large Lecture Theatre

13:40–14:00

Landau damping and quantum criticality in Fermi systems from the Wilsonian RG perspective

Speaker

Paweł Jakubczyk

14:00–14:20

Quantum critical Dirac semimetals and finite-temperature effects

Speaker

Mireia Tolosa-Simeón

14:20–14:40

From Bose glass to Many-Body Localization in a one-dimensional disordered Bose gas

Speaker

Vincent Grison

14:40–15:00

Dynamics in quantum random-field systems: localization or activation?

Speaker

Ivan Balog

15:00

13:40

Parallel Session: Room 2

Session | **Location:** Jubilee Building, 155

13:40–14:00

Strongly coupled four-fermion fixed points in four dimensions

Speaker

Charlie Cresswell-Hogg

14:00–14:20

Chiral Lagrangian as a proxy for ASQG

Speaker

Francesco Del Porro

14:20–14:40

Renormalizability and UV behavior of 5D gauge theories

Speaker

Anca Preda

14:40–15:00

RG fixed points from outer automorphisms and goofy transformations

Speaker

Andreas Trautner

15:00

13:40

Parallel Session: Room 3

Session | **Location:** Jubilee Building, 144

13:40–14:00

The θ -vacuum from functional renormalisation

Speaker

Yuepeng Guan

14:00–14:20

Conformal Symmetry as an Organizing Principle for the Derivative Expansion

Speaker

Gonzalo De Polsi

14:20–14:40

Modified Forward Scattering and Unitarity in Matter Chern--Simons Theory

Speaker

Max Uetrecht

14:40–15:00

New approach to OPE coefficients from the FRG

Speaker

Félix Rose

15:00

Wednesday 2 September

14:00

Parallel Session: Room 1

Session | **Location:** Jubilee Building, Large Lecture Theatre

14:00–14:20

$d \geq 4$ gravitational vacua and black hole thermodynamics from $2D$ dilaton theories

Speaker

Johanna Borissova

14:20–14:40

Entanglement and renormalization-group flow

Speaker

Nikolaos Tetradis

14:40–15:00

How Sensitive is Cosmic Inflation to Quantum Corrections? An ERG Approach.

Speaker

Lucien Heurtier

15:00–15:20

The axion coupling accelerates the Universe through c PT-symmetric phases

Speaker

Prof. Sarben Sarkar

15:20–15:40

Prospects for scalar-tensor cosmology in asymptotically safe quantum gravity

Speaker

Fabian Wagner

15:40

14:00

Parallel Session: Room 2

Session | **Location:** Jubilee Building, 155

14:00–14:20

Thermal preconcondensation and its appearance in gauge-fermion theories

Speaker

Alvaro Pastor Gutierrez

14:20–14:40

Functional Renormalization Group Flows and Gauge Consistency

Speaker

Katsumi Itoh

14:40–15:00

The Fate of Chiral Gauge Theory

Speaker

Hao-Lin Li

15:00–15:20

Diquark Properties from First Principles

15:40

14:00

15:40

Speaker

Ugo Mire

15:20–15:40

Functional Renormalization of QCD in 1+1 dimensions

Speaker

Eric Oevermann

Parallel Session: Room 3

Session | **Location:** Jubilee Building, 144

14:00–14:20

Informational renormalization group

Speaker

Takato Mori

14:20–14:40

Exploring multi parameter optimization in FRG

Speaker

Gian Paolo Vacca

14:40–15:00

Non-Gaussian statistics of the order parameter across a continuous phase transition

Speaker

Adam Rançon

15:00–15:20

Universal Crossover in the Three-Channel Charge Kondo Model at High Transparency

Speaker

Mr Nicolas Paris

15:20–15:40

The Adjoint Field as an Influence Map: Sensitivity Analysis of FRG Flows

Speaker

Ashutosh Dash

Thursday 3 September

09:00

Parallel Session: Room 1

Session | **Location:** Bramber House, Terrace Room

09:00–09:20 **Asymptotically safe Standard Model**

Speaker

Astrid Eichhorn

09:20–09:40

Fixed points of the renormalisation group flow the CKM and PMNS matrices : CP violation in the Standard Model and beyond

Speaker

Prof. Brian Dolan

09:40–10:00

Near-criticality of the neutrino sector of the Standard Model

Speaker

Zois Gyftopoulos

10:00–10:20

Quantum gravity contributions to the gauge and Yukawa couplings in proper time flow

Speaker

Daniele Rizzo

10:20

09:00

Parallel Session: Room 2

Session | **Location:** Bramber House, Gallery Room 1

09:00–09:20 **Rethinking Dimensional Regularization in Critical Phenomena**

Speaker

Alessandro Codello

09:20–09:40

Functional Dimensional Regularization for $O(N)$ Models

Speaker

Piero Beretta

09:40–10:00

Perturbatively Exact Fixed Points in Three Dimensions

Speaker

Tom Steudtner

10:00–10:20

Mass generation at a fixed point: A Functional Renormalization Group Study of the tricritical $O(N)$ model in $d=3$ and $N=\infty$

Speaker

Dr Shunsuke Yabunaka

10:20

09:00

Parallel Session: Room 3**Session** | **Location:** Bramber House, Gallery Room 2

09:00–09:20

Density functional theory of renormalization group in nuclear matter**Speaker**

Prof. Wei-jie Fu

09:20–09:40

Precondensation and inhomogeneous instabilities in high-density QCD**Speaker**

Franz Richard Sattler

09:40–10:00

Pion Distribution Amplitudes from Functional QCD**Speaker**

Chuang Huang

10:00–10:20

FRG Constraints on Diquark Pairing: Implications for Color-Superconducting Quark Matter**Speaker**

Bernd-Jochen Schaefer

10:20

11:00

Parallel Session: Room 1**Session** | **Location:** Bramber House, Terrace Room

11:00–11:20

Spectral Functions of Lorentzian Quantum Gravity**Speaker**

Gabriel Assant

11:20–11:40

Unitarity at all scales: Towards 2-to-2 scattering of scalars in Asymptotically Safe Quantum Gravity.**Speaker**

Angelo Portas Chiesa

11:40–12:00

Understanding IR divergences in higher derivative theories**Speaker**

Diego Buccio

12:00–12:20

Renormalization Group Approach to the Gravitational Two-Body Problem**Speaker**

Facundo Gutierrez

12:20

11:00

Parallel Session: Room 2**Session** | **Location:** Bramber House, Gallery Room 1

11:00–11:20

A complex LPA for the critical and multicritical Lee-Yang fixed points**Speaker**

Fanny Eustachon

12:20

11:00

12:20

11:20-11:40

Exploring Temperature-Resistant Order in Quantum Field Theories

Speaker

Bilal Hawashin

11:40-12:00

Derivative Expansion, Frustrated Antiferromagnets and $O(N) \times O(2)$ models

Speaker

Nicolás Wschebor

12:00-12:20

Critical Phenomena on the Bethe Lattice

Speaker

Saswato Sen

Parallel Session: Room 3

Session | **Location:** Bramber House, Gallery Room 2

11:00-11:20

Triviality doesn't mean Gaussianity: A Renormalization Group perspective

Speaker

Sankarshan Sahu

11:20-11:40

$SO(1, d+1)$ symmetry of the exact RG equation

Speaker

Ms Semanti Dutta

11:40-12:00

Summation of logarithmic quantum corrections based on the locality of QFT

Speaker

Alfia Mukhaeva

12:00-12:20

Linearity in the renormalization group equations

Speaker

Denis Tolkachev

Friday 4 September

14:00

Parallel Session: Room 1

Session | **Location:** Jubilee Building, Large Lecture Theatre

14:00–14:20 **Scaling regimes of the 1D Kuramoto-Sivashinsky equation**

Speaker

Liubov Gosteva

14:20–14:40 **Long range to short range crossover in one dimension**

Speaker

Tilman Enss

14:40–15:00 **Dynamical criticality beyond the overdamped limit**

Speaker

Dr Laura Batini

15:00–15:20 **Wave interaction in astrophysical plasmas**

Speaker

Olivier Coquand

15:20–15:40

A Functional Renormalization Group Approach to Anomaly Detection via Dimensional Phase Transitions

Speaker

Riccardo Finotello

15:40

14:00

Parallel Session: Room 2

Session | **Location:** Jubilee Building, 155

14:00–14:20 **Physics-informed neural networks for solving FRG**

Speaker

Takeru Yokota

14:20–14:40

Solving Functional Renormalization Group Equations with Neural Networks

Speaker

Yang-yang Tan

14:40–15:00 **Existence theorem on the UV limit of Wilsonian RG flows**

Speaker

Andras Laszlo

15:00–15:20 **Flow equations of second order**

Speaker

Prof. Stefan Floerchinger

15:20–15:40 **Singularities in the RG flow**

15:40

Speaker

Antal Jakovác

14:00

Parallel Session: Room 3**Session** | **Location:** Jubilee Building, 144

14:00–14:20

Fermionic fRG with interaction flows : applications to electron-phonon systems**Speaker**

Kilian Fraboulet

14:20–14:40

Renormalisation group approaches for $SU(N) \times SU(M)$ symmetric Hubbard models**Speaker**

Hannes Braun

14:40–15:00

Functional renormalization group approach to boson-induced superconductivity in Bose-Fermi mixtures**Speaker**

Richard Schmidt

15:00–15:20

Functional renormalization group for extremely correlated electrons**Speaker**

Andreas Rückriegel

15:20–15:40

Control of ordered phases by manipulation of Van Hove singularities: insights from truncated-unity FRG**Speaker**

Dr Thomas Sheerin

15:40