

Session Program

Sep 4 - 7, 2023

Bologna Workshop on:



CFT AND INTEGRABLE MODELS



and their applications from gauge/gravity dualities to statistical mechanics and quantum information

10th Bologna Workshop on Conformal Field Theory and Integrable Models

Bologna Workshop CFT-IM

Dept. of Physics and Astronomy - University of Bologna, Aula Magna
Via Imerio 46 - 40126 Bologna, Italy

Mon, September 4

9:00 AM

Bologna Workshop CFT-IM: Monday 04 Sept - Morning

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Iriero 46 - 40126 Bologna, Italy

9:00 – 9:30 AM **Registration & Welcome**

9:30 – 10:20 AM

Gas of Bethe ansatz wavepackets and an ab initio derivation of generalised hydrodynamics

Speaker

Benjamin Doyon

10:20 – 10:50 AM **Exact solvability of loop models**

Speaker

Sylvain Ribault

10:50 – 11:10 AM **Coffee break**

11:10 – 11:40 AM **Critical points of coupled Potts models and correlated percolation**

Speaker

Gesualdo Delfino

11:40 AM – 12:00 PM

Hidden strong symmetries in a range 3 deformation of the Hubbard model

Speaker

Chiara Paletta

12:00 – 12:20 PM **Homotopy Manin triples and higher current algebras**

Speaker

Charles Young

12:20 – 12:40 PM **New insights into quantum affine Gaudin models**

Speaker

Tommaso Franzini

12:40 PM

2:30 PM

Bologna Workshop CFT-IM: Monday 04 Sept - Afternoon

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Iriero 46 - 40126 Bologna, Italy

2:30 – 3:20 PM

Diffusion, Thermalisation and Turbulence in generalised hydrodynamics

Speaker

Jacopo De Nardis

3:20 – 3:50 PM **Q-operator construction for rational spin chains**

Speaker

Rouven Frassek

3:50 - 4:20 PM

Negative tripartite information after quantum quenches in integrable systems

Speaker

Vincenzo Alba

4:20 - 4:40 PM

Coffee break

4:40 PM

Tue, September 5

9:00 AM

Bologna Workshop CFT-IM: Tuesday 05 Sept - Morning

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Irnerio 46 - 40126 Bologna, Italy

9:00 - 9:50 AM **Inverse Scattering from Spectral Curves**

Speaker

Niklas Beisert

9:50 - 10:20 AM **The Frustration of Being Odd**

Speaker

Fabio Franchini

10:20 - 10:50 AM **Q-operators for Open Quantum Spin Chains**

Speaker

Robert Weston

10:50 - 11:10 AM **Coffee break**

11:10 - 11:40 AM **GGEs, modular transforms and defects**

Speaker

Gerard Watts

11:40 AM - 12:00 PM

N=8 supergravity as a theoretical laboratory for gravitational scattering

Speaker

Carlo Heissenberg

12:00 - 12:20 PM

Entanglement asymmetry in the ordered phase of many-body systems: the Ising Field Theory

Speaker

Luca Capizzi

12:20 - 12:40 PM

Completing the Bootstrap Program for \overline{TT} -deformed Massive Integrable Quantum Field Theories

Speaker

Fabio Sallis

12:40 PM

Wed, September 6

9:00 AM

Bologna Workshop CFT-IM: Wednesday 06 Sept - Morning

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Irnerio 46 - 40126 Bologna, Italy

9:00 – 9:50 AM

Integrability and truncated spectrum approach for out-of-equilibrium dynamics

Speaker

Jean-Sébastien Caux

9:50 – 10:20 AM

On the origin of the correspondence between classical and quantum integrable theories

Speaker

Marco Rossi

10:20 – 10:50 AM

Integrability tools for gauge theory and black holes physics

Speaker

Daniele Gregori

10:50 – 11:10 AM

Coffee break

11:10 AM – 12:00 PM

ODE/IM correspondence: Wall-crossing of TBA equations

Speaker

Katsushi Ito

12:00 – 12:20 PM

Nonequilibrium Full Counting Statistics and Symmetry-Resolved Entanglement in integrable models

Speaker

Colin Rylands

12:20 – 12:40 PM

Elliptic quantum toroidal algebra $U_{\{q,t,p\}}(\mathfrak{gl}_{1,\text{tor}})$ and Affine quiver gauge theories

Speaker

Hitoshi Konno

12:40 PM

2:30 PM

Bologna Workshop CFT-IM: Wednesday 06 Sept - Afternoon

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Irnerio 46 - 40126 Bologna, Italy

2:30 – 3:20 PM

Thermodynamics, transport, and fluctuations in the sine-Gordon model

Speaker

Márton Kormos

3:20 – 3:50 PM

Sine-Gordon: from coupled condensates to hydrodynamics

Speaker

Alvise Bastianello

3:50 - 4:20 PM **Structure Constants of Short Operators in N=4 Super-Yang Mills**

Speaker

Arthur Klemenchuk Sueiro

4:20 - 4:40 PM **Coffee break**

4:40 - 5:00 PM

One-particle density matrix of the out-of-equilibrium Tonks-Girardeau gas: exact results from Quantum Generalized Hydrodynamics

Speaker

Stefano Scopa

5:00 - 5:20 PM **Viscous GHD at low temperatures**

Speaker

Andrew Urilyon

5:20 - 5:40 PM **Fast QSC Solver for Excited States**

Speaker

Nika Sokolova

5:40 PM

Thu, September 7

9:00 AM

Bologna Workshop CFT-IM: Thursday 07 Sept - Morning

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Iriero 46 - 40126 Bologna, Italy

9:00 - 9:50 AM **A new long range fermionic integrable model.**

Speaker

Didina Serban

9:50 - 10:20 AM **Integrated correlators with line defects**

Speaker

Luigi Guerrini

10:20 - 10:50 AM **Conformal field theory at the edge of Quantum Hall droplets**

Speaker

Jean-Marie Stéphan

10:50 - 11:10 AM **Coffee break**

11:10 - 11:40 AM

Exactly solvable subspaces of spin-1 chains with boundaries and quasiparticle interactions

Speaker

Chihiro Matsui

11:40 AM - 12:00 PM **Arctic curves of the four-vertex model**

Speaker

Andrea Maroncelli

12:00 - 12:20 PM

Remarks on BPS Wilson loops in non-conformal $N=2$ gauge theories and localization

Speaker

Alessandro Testa

12:20 - 12:40 PM

Wetting and entropic repulsion in two dimensions. Exact results from boundary field theory.

Speaker

Alessio Squarcini

12:40 PM

2:30 PM

Bologna Workshop CFT-IM: Thursday 07 Sept - Afternoon

Session |

Location: Dept. of Physics and Astronomy - University of Bologna, Aula Magna, Via Iriero 46 - 40126 Bologna, Italy

2:30 - 3:00 PM

Regge spectroscopy of higher twist states in $\mathcal{N}=4$ supersymmetric Yang-Mills theory

Speaker

Istvan Mate Szecsenyi

3:00 - 3:20 PM

U(1) entanglement asymmetry in the Ising CFT via non-topological defects

Speaker

Michele Fossati

3:20 - 4:10 PM

From exact WKB analysis to instanton counting at strong coupling

Speaker

Pietro Longhi

4:10 PM