# Integrable Quantum Many-Body Systems

768. WE-Heraeus-Seminar

23 - 27 May 2022

hybrid

at the Physikzentrum Bad Honnef, Germany



#### Sunday, 22 May 2022

17:00 – 20:00 Registration

18:00 BUFFET SUPPER and informal get-together

#### Monday, 23 May 2022

08:00	BREAKFAST	
09:00	Scientific organizers	Welcome words
09:10 – 09:55	Barry McCoy	Ising correlations; results for Painlevé VI, factorizations and lambda extensions
09:55 – 10:40	Junji Suzuki	Exact dynamical correlations
10:40 – 11:10	COFFEE & TEA	
11:10 – 11:55	Holger Frahm	Critical properties of intersecting loop models and their deformations
11:55 – 12:40	Jesper Jacobsen	Geometric algebra and algebraic geometry of loop and Potts models
12:40 – 12:50	Conference Photo (in	the front of the lecture hall)
12:50	LUNCH	

## Monday, 23 May 2022

14:30 – 15:15	Ovidiu Patu	Dynamical fermionization of one- dimensional multi-component gases at finite temperature
15:15 – 16:00	Imke Schneider	The quasi-1D Lieb-Liniger gas with time-periodically modulated interactions
16:00 – 16:30	COFFEE & TEA	
16:30 – 18:00	Poster session	
18:00	DINNER	

#### Tuesday, 24 May 2022

08:00	BREAKFAST	
09:00 – 09:45	Alexander Belavin	Spectral flow construction of N=2 superconformal orbifolds
09:45 – 10:30	Fedor Smirnov	The matrix elements in sG model for shifted primary fields
10:30 – 11:00	COFFEE & TEA	
11:00 – 11:45	Olalla Castro Alvaredo	Symmetry resolved entanglement in quantum field theory
11:45 – 12:30	Anastasia Doikou	Quasi-bialgebras from set-theoretic type solutions of the Yang-Baxter equation
12:30	LUNCH	
12:30 14:30 – 15:00	LUNCH  Murray Batchelor	A coupled Temperley-Lieb algebra and the superintegrable chiral Potts model
14:30 – 15:00	Murray Batchelor	the superintegrable chiral Potts model  Universality in nonequilibrium quantum
14:30 – 15:00 15:00 – 15:30	Murray Batchelor Gesualdo Delfino	the superintegrable chiral Potts model Universality in nonequilibrium quantum dynamics Functional RG approach to non-
14:30 – 15:00 15:00 – 15:30 15:30 – 16:00	Murray Batchelor  Gesualdo Delfino  Christoph Karrasch	the superintegrable chiral Potts model Universality in nonequilibrium quantum dynamics Functional RG approach to non-

## Wednesday, 25 May 2022

08:00	BREAKFAST	
09:00 – 09:45	Chihiro Matsui	Quasilocal charges of the XXZ spin chain and integrability of the boundary-driven diffusive system
09:45 – 10:30	Veronique Terras	Correlation functions for open XXZ spin 1/2 quantum chains with unparallel boundary magnetic fields
10:30 – 11:00	COFFEE & TEA	
11:00 – 11:45	Robert Weston	Q operators for open quantum spin chains
11:45 – 12:30	Karol Kozlowski	Convergence of the form factor series in the Sinh-Gordon quantum field theory in 1+1 dimensions
12:30	LUNCH	
12:30 14:30 – 15:00	LUNCH Bart Vlaar	A universal approach to trigonometric K-matrices
14:30 – 15:00	Bart Vlaar	K-matrices  Non-compact spin chains and
14:30 – 15:00 15:00 – 15:30 15:30 – 16:00	Bart Vlaar Rouven Frassek	K-matrices  Non-compact spin chains and integrable particle processes  Algebraic Bethe Ansatz for Free
14:30 – 15:00 15:00 – 15:30 15:30 – 16:00	Bart Vlaar Rouven Frassek Kun Hao	K-matrices  Non-compact spin chains and integrable particle processes  Algebraic Bethe Ansatz for Free

## Thursday, 26 May 2022

08:00	BREAKFAST	
09:00 – 09:45	Vladimir Bazhanov	An Ising-type formulation of the six- vertex model
09:45 – 10:30	Patrick Dorey	Analytic continuation of TBA equations
10:30 – 11:00	COFFEE & TEA	
11:00 – 11:45	Jean Michel Maillet	On the Tetrahedron equation
11:45 – 12:30	Balázs Pozsgay	Integrable models with medium range interactions
12:30	LUNCH	
14:30 – 15:15	Angela Foerster	Design of integrable quantum devices
15:15 – 16:00	Giuliano Pavan Ribeiro	Correlation functions of integrable O(n) spin chains
16:00 – 16:30	COFFEE & TEA	
16:30 – 17:30	Fabian Essler	Quantum dynamics in interacting Bose gases
18:30	HERAEUS DINNER (social event with cold	& warm buffet with complimentary drinks)

#### Friday, 27 May 2022

08:00	BREAKFAST	
09:00 – 09:45	Kazumitsu Sakai	The spin Drude weight for the XXZ chain with arbitrary spin
09:45 – 10:30	Jesko Sirker	Transport properties of the XXZ spin chain
10:30 – 11:00	COFFEE & TEA	
11:00 – 11:45	Sergei Rutkevich	Spinon confinement in the gapped antiferromagnetic XXZ spin-1/2 chain
11:45– 12:30	Paul Pearce	Critical site percolation on the triangular lattice
12:30 – 12:45	Scientific organizers	Closing words
12:45	LUNCH	

#### End of the seminar and departure

NO DINNER for participants leaving on Saturday; however, a self-service breakfast will be provided on Saturday morning