

List of Publications

Monograph:

The One-Dimensional Hubbard Model,
F.H.L. Essler, F. Göhmann, H. Frahm, A. Klümper and V.E. Korepin,
690 pages, Cambridge University Press, Cambridge (2005);
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Publications in Refereed Journals:

144. A short introduction to Generalized Hydrodynamics
F.H.L. Essler,
Physica A, 127572 (2022).
143. Bogoliubov-Born-Green-Kirkwood-Yvon Hierarchy and Generalized Hydrodynamics
B. Bertini, E. Granet and F.H.L. Essler,
Phys. Rev. Lett. **128**, 190401 (2022).
142. Duality between Weak and Strong Interactions in Quantum Gases
E. Granet, B. Bertini and F.H.L. Essler,
Phys. Rev. Lett. **128**, 021604 (2022).
141. Dynamics of Fluctuations in Quantum Simple Exclusion Processes
D. Bernard, F.H.L. Essler, L. Hruza and M. Medenjak,
SciPost Phys. **12**, 042 (2022).
140. Out-of-equilibrium dynamics of the XY spin chain from form factor expansion
E. Granet, H. Dreyer and F.H.L. Essler,
SciPost Phys. **12**, 019 (2022).
139. Exact solution of a quantum asymmetric exclusion process with particle creation and annihilation
J. Robertson and F.H.L. Essler,
J. Stat. Mech. 103102 (2021).
138. Systematic strong coupling expansion for out-of-equilibrium dynamics in the Lieb-Liniger model
E. Granet and F.H.L. Essler
SciPost Phys. **11**, 068 (2021).
137. Integrability of 1D Lindbladans from operator-space fragmentation
F.H.L. Essler and L. Piroli
Phys. Rev. E **102**, 062210 (2020).
136. A systematic $1/c$ -expansion of form factor sums for dynamical correlations in the Lieb-Liniger model
E. Granet and F.H.L. Essler
SciPost Phys. **9**, 082 (2020).
135. Finite temperature and quench dynamics in the Transverse Field Ising Model from form factor expansions
E. Granet, M. Fagotti and F.H.L. Essler,
SciPost Phys. **9**, 033 (2020).
134. On the low-energy description for tunnel-coupled one-dimensional Bose gases
Y.D. van Nieuwkerk and F.H.L. Essler,
SciPost Phys. **9**, 025 (2020).

133. Yang-Baxter integrable Lindblad equations
A.A. Ziolkowska and F.H.L. Essler,
SciPost Phys. **8**, 044 (2020).
132. How order melts after quantum quenches
M. Collura and F.H.L. Essler,
Phys. Rev. **B101**, 041110 (2020).
131. Almost strong $0, \pi$ edge modes in clean, interacting 1D Floquet systems
D.J. Yates, F.H.L. Essler and A. Mitra,
Phys. Rev. **B99**, 205419 (2019).
130. Self-consistent time-dependent harmonic approximation for the Sine-Gordon model out of equilibrium
Y.D. van Nieuwkerk and F.H.L. Essler,
J. Stat. Mech. 084012 (2019).
129. NMR relaxation in Ising spin chains
J. Steinberg, N.P. Armitage, F.H.L. Essler and S. Sachdev,
Phys. Rev. **B99**, 035156 (2019).
128. Exotic criticality in the dimerized spin-1 XXZ chain with single-ion anisotropy
S. Ejima, T. Yamaguchi, F.H.L. Essler, F. Lange, Y. Ohta and H. Fehske,
SciPost Phys. **5**, 059 (2018).
127. Projective phase measurements in one-dimensional Bose gases
Y.D. van Nieuwkerk, J. Schmiedmayer and F.H.L. Essler,
SciPost Phys. **5**, 046 (2018).
126. Integrable spin chains with random interactions
F.H.L. Essler, R. van den Berg and V. Gritsev,
Phys. Rev. **B98**, 024203 (2018).
125. Full Counting Statistics in the Transverse Field Ising Chain
S. Groha, F.H.L. Essler and P. Calabrese,
SciPost Phys. **4**, 043 (2018).
124. Finite temperature dynamics of the Mott insulating Hubbard chain
A. Nocera, F.H.L. Essler and A.E. Feiguin,
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123. Atypical energy eigenstates in the Hubbard chain and quantum disentangled liquids
T. Veness, F.H.L. Essler and M.P.A. Fisher,
Phil. Trans. R. Soc. A 375: 20160433 (2017).
122. Full counting statistics in the spin-1/2 Heisenberg XXZ chain
M. Collura, F.H.L. Essler and S. Groha,
J. Phys. **A 50**, 414002 (2017).
121. Spinon confinement in a quasi one dimensional anisotropic Heisenberg magnet
A. K. Bera, B. Lake, F. H. L. Essler, L. Vanderstraeten, C. Hubig, U. Schollwock, A.T.M.N. Islam, A. Schneidewind and
D. L. Quintero-Castro,
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S. Groha and F.H.L. Essler,
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119. Quantum-disentangled liquid in the half-filled Hubbard model
T. Veness, F.H.L. Essler and M.P.A. Fisher,
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118. On Truncated Generalized Gibbs Ensembles in the Ising Field Theory
F.H.L. Essler, G. Mussardo and M. Panfil,
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117. Thermalization and light cones in a model with weak integrability breaking
B. Bertini, F.H.L. Essler, S. Groha and N.J. Robinson,
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M.V. Medvedyeva, F.H.L. Essler and T. Prosen,
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L. Piroli, P. Calabrese and F.H.L. Essler,
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114. Ising tricriticality in the extended Hubbard model with bond dimerization
S. Ejima, F.H.L. Essler, F. Lange and H. Fehske,
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113. Quench dynamics and relaxation in isolated integrable quantum spin chains
F.H.L. Essler and M. Fagotti,
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112. Entanglement growth and correlation spreading with variable-range interactions in spin and fermionic tunnelling models,
A.S. Buyskikh, M. Fagotti, J.Schachenmayer, F.H.L. Essler and A.J. Daley,
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111. Mobile impurity approach to the optical conductivity in the Hubbard chain
T. Veness and F.H.L. Essler,
Phys. Rev. **B93**, 205101 (2016).
110. Optical conductivity of the Hubbard chain away from half filling
A.C. Tiegel, T. Veness, P.E. Dargel, A. Honecker, T. Pruschke, I.P. McCulloch and F.H.L. Essler,
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109. Multi-particle bound state formation following a quantum quench to the one-dimensional Bose gas with attractive interactions
L. Piroli, P. Calabrese and F.H.L. Essler,
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M. Collura, P. Calabrese and F.H.L. Essler,
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105. Spin-charge separated quasiparticles in one dimensional quantum fluids
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104. Generalized Gibbs Ensembles for Quantum Field Theories
F.H.L. Essler, G. Mussardo and M. Panfil,
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103. Real-time dynamics in the one-dimensional Hubbard model
L. Seabra, F.H.L. Essler, F. Pollmann, I. Schneider and T. Veness,
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102. Quasi-particle breakdown in the quasi-one-dimensional Ising ferromagnet CoNb_2O_6
N.J. Robinson, F.H.L. Essler, I. Cabrera and R. Coldea,
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101. Quantum quench in the sine-Gordon model
B. Bertini, D. Schuricht and F.H.L. Essler,
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100. Light-cone dynamics after quantum quenches in spin chains
L. Bonnes, F.H.L. Essler and A. Läuchli
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99. Entanglement Entropies of the quarter-filled Hubbard model
P. Calabrese, F.H.L. Essler and A. Läuchli,
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98. Quench dynamics in a model with tuneable integrability breaking
F.H.L. Essler, S. Kehrein, S.R. Manmana and N.J. Robinson,
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96. Stationary behaviour of observables after a quantum quench in the spin-1/2 Heisenberg XXZ chain
M. Fagotti and F.H.L. Essler,
J. Stat. Mech. P07012, (2013).
95. Reduced Density Matrix after a Quantum Quench
M. Fagotti and F.H.L. Essler,
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94. Time evolution of local observables after quenching to an integrable model
J.S Caux and F.H.L. Essler,
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93. Shell-Filling Effect in the Entanglement Entropies of Spinful Fermions
F.H.L. Essler, A. Läuchli and P. Calabrese,
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92. Dynamical Correlations after a Quantum Quench, F.H.L. Essler, S. Evangelisti and M. Fagotti,
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91. Quantum Quench in the Transverse Field Ising chain II: Stationary State Properties
P. Calabrese, F.H.L. Essler and M. Fagotti,
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P. Calabrese, F.H.L. Essler and M. Fagotti ,
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89. Dynamics in the Ising field theory after a quantum quench
D. Schuricht and F.H.L. Essler,
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77. Universal Corrections to Scaling for Block Entanglement in Spin-1/2 XX Chains
P. Calabrese and F.H.L. Essler,
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