CURRICULUM VITAE

Jens Eisert
Professor of Theoretical Physics

Email: jense@physik.fu-berlin.de
Web: http://www.physik.fu-berlin.de/en/einrichtungen/ag/ag-eisert

Freie Universität Berlin
Arnimallee 14
14195 Berlin

PERSONAL DETAILS

- **Date of birth:** 9th of October 1970
- **Nationalities:** German and Swedish
- **Marital status:** Married, one child

ACADEMIC APPOINTMENTS

05/11-	**Full Professor**, Dahlem Center for Complex Quantum Systems, **Freie Universität Berlin**
10/09-09/10	**Fellow** at the **Institute for Advanced Study Berlin** (Wissenschaftskolleg)
05/08-04/11	**Full Professor**, **University of Potsdam**
03/05-5/08	**Lecturer** (permanent), Institute for Mathematical Sciences, **Imperial College London**
12/02-03/05	**Junior Professor**, Quantum Optics and Quantum Information, **University of Potsdam**
12/02-01/03	**Visiting Scholar**, IQI, **California Institute of Technology**
07/01-11/02	**Feodor Lynen Fellow** in QOLS, **Imperial College London**
02/01-07/01	**Postdoctoral researcher** in QOLS, **Imperial College London**, supported by the EU

RESEARCH

Research interests: Quantum information theory, condensed matter theory, q

- Out-of-equilibrium complex quantum systems
- Entanglement theory
- Tensor networks descriptions of condensed-matter systems
- Quantum information theory
- Quantum optics and cold atoms in optical lattices
- Compressed sensing, matrix completion and quantum certification
- Quantum thermodynamics

Research talks:

- >**250 invited talks** at workshops, conferences, and in colloquia

Publications:

- **186** scientific publications, of which
- **56** published in the **Phys. Rev. Lett.**
- **8** published in the **Nature** group
- **3** in the **Commun. Math. Phys.**

Citations:

- **8.972 citations** according to Web of Science (WoS)
- **15.165 citations** according to Google Scholar (GS)
- **h-index 61** (GS), **50** (WoS)
- **42 publications** with >100 citations (GS)

AWARDS AND PRIZES

- **ERC Consolidator Award** of the European Research Council, 2012
- **Institute for Advanced Study Berlin** Fellow, 2010-2011
- **European Research Young Investigator** (EURYI) Award, 2004
- **Feodor Lynen** Scholarship of the **Alexander von Humboldt Foundation**, 2001
- **Michelson Prize**, 1998
- **Sigma Pi Sigma Honour Society Award**, 1995
- **J. W. Fulbright** Scholarship, 1994

PHD

04/98-01/01 **PhD, University of Potsdam**, thesis advisor M. Wilkens,
"Entanglement in Quantum Information Theory"
Final grade: **Summa cum laude**

EDUCATION

95-98, 91-94 **Albert Ludwigs University Freiburg**, studies in physics
Degree: **Diploma in Physics**
Final grade: **very good**
Topic of dissertation: *"Quantum Brownian Motion: A Quantum Monte Carlo Approach"*

94–95 **University of Connecticut**, as a J. W. Fulbright Fellow,
postgraduate studies in mathematics and physics
Degree: **Master of Science**, GPA: **3.88**
Scientific work in applied mathematics/numerical analysis

81–90 **Wilhelm-von-Humboldt**-High-School, Ludwigshafen
Degree: **Abitur**, average mark: **1.0**

EDITORIAL BOARD MEMBERSHIPS AND SERVICES TO THE COMMUNITY

- *Quantum Science and Technologies*
- *Physical Review A* (term 2008-2010)
- *Journal of Physics A*
- *Quantum* (2016-)
- *Quantum Information Processing* (term -2016)
- *Quantum Information and Computation*
- Coauthor and lead theory editor of the *2010 road map for quantum information science* of the EU
- Coauthor of the quantum simulations section of the *2016 road map for quantum information science* of the EU
- Member of the *QUTEGA* steering committee planning the German implementation of the *EU Flagship for Quantum Technologies*

ORGANISATIONAL SKILLS

- **TQC2016**, head organiser, major conference on quantum information, September 2016
- **Subproject leader** in EU projects QAP, QESSENCE
- Co-author and working group leader of the **COST Action MP1209** "Thermodynamics in the Quantum Regime", since 2012
- **COST-conference**, first COST conference on quantum thermodynamics held in Potsdam, January 2014
- **QQQ-Meeting**, regular meeting in the Berlin-Potsdam academic landscape on quantum information, quantum optics, and quantum many-body theory (organizer and co-founder)
- **Summer adademy of the Studienstiftung des deutschen Volkes, Görlitz 2008**, course on quantum information theory, August 2008, jointly with A. Rauschenbeutel, Mainz
- **PAQ07, head of local organizing committee**, major international conference on quantum optics and quantum information, Royal Society London, September 2007
- **Summer academy of the Studienstiftung des deutschen Volkes, Rot an der Rot 2004**, course on quantum information theory, August 2004, jointly with R. F. Werner
- **Member of many conference scientific boards**
- **IQING 2002**, organizer of an international conference for PhD students and postdocs on quantum information science in theory and experiment
- **IQING 2001**, jointly with C. Simon (Oxford) and Jonathan (Cambridge), 2001
- **YAO '99 – Young Atom Opticians**, jointly with T. Felbinger and C. Henkel (Potsdam), 1999
- **A2-Consortium For Quantum Information**, 1998 – 2001, 2003

GROUP LEADING SKILLS AND SUPPORT OF YOUNG SCIENTISTS

- **Diploma and MSc supervision:** Jacqueline Lekscha, Sybille Rosset, Marek Gluza, Michael Herold, Dominik Hangleiter, Marcel Goihl, Holger Bernigau, Alex Nietner, Benjamin Bach, Carina Prunkl, Henrik Wilming, Moritz von Hase, Adrian Steffens, Jonas Hoersch, Mathis Friesdorf, Alexander Kegeles, Holger Bernigau, Inka Benthin, Janet Anders, David Gross, Axel Friedenauer
- **PhD supervision:** Christian Krumnow, Carolin Wille, Henrik Wilming, Janina Gertis, Adrian Steffens, Emilio Onorati, Christian Gogolin, Martin Kliesch, Mathis Friesdorf, Andrea Mari, Matthias Ohliger, Marcus Cramer, David Gross, Konrad Kieling, Fernando Brandao, Alvaro Feito (the latter two in co-supervision)
- **Postdoctoral researchers:** Oliver Buerschaper, Alexander Streltsov, Ville Lahtinen, Rodrigo Gallego, Adam Nagy, Leandro Aolita, Albert Werner, Earl Campbell, Thomas Barthel, Carlos Riofrio, Martin Schwarz, Ville Lahtinen, Michael James Kastoryano, Carlos Pineda, Arnau Riera, Vincent Nesme, Robert Hübener, Niel de Beaudrap, Markus Müller, Dong Yang, Phil Hyllus, Chris Dawson, Marcus Cramer, Kenny Pregnell (co-supervised)
- **Host of Humboldt-Bessel-award winners:** Markus Aspelmeyer, Tomaz Prosen
- **Host of Humboldt and Marie-Curie stipends:** Alexander Streltsov, Rodrigo Gallego, Leandro Aolita, Michael James Kastoryano, Martin Schwarz

LIST OF PUBLICATIONS

Jens Eisert
Professor of Theoretical Physics

Email: jense@physik.fu-berlin.de
Web: http://www.physik.fu-berlin.de/en/einrichtungen/ag/ag-eisert

Freie Universität Berlin
Arnimallee 14
14195 Berlin

PUBLICATIONS IN HIGH IMPACT JOURNALS

This list comprises all those publications that have been published in

- *Physical Review Letters*
- *Nature Physics*
- *Nature*
- *Nature Communications*
- *Nature Photonics*
- *Nature PJ Quantum Information*
- *Physical Review X*
- *Reviews of Modern Physics*
- *Communications in Mathematical Physics*
- *Proceedings of the National Academy of Sciences*
- *Reports on Progress in Physics*

[1] "Fermionic orbital optimisation in tensor network states",
C. Krumnow, L. Veis, Ö. Legeza, J. Eisert,
Physical Review Letters **117**, 210402 (2016),
(Lanl e-print arXiv:1504.00042).

[2] "Equilibration via Gaussification in fermionic lattice systems",
M. Gluza, C. Krumnow, M. Friesdorf, C. Gogolin, J. Eisert,
Physical Review Letters **117**, 190602 (2016),
(Lanl e-print arXiv:1601.00671).

[3] "Diagnosing topological edge states via entanglement monogamy",
K. Meichanetzidis, J. Eisert, M. Cirio, V. Lahtinen, J. K. Pachos,
Physical Review Letters **116**, 130501 (2016),
(Lanl e-print arXiv:1511.04459).

[4] "Renormalising entanglement distillation",
S. Waeldchen, J. Gertis, E. T. Campbell, J. Eisert,
Physical Review Letters **116**, 020502 (2016),
(Lanl e-print arXiv:1503.04822).

[5] "A positive tensor network approach for simulating open quantum many-body systems",
A. H. Werner, D. Jaschke, P. Silvi, M. Kliesch, T. Calarco, J. Eisert, S. Montangero,
Physical Review Letters **116**, 237201 (2016),
(Lanl e-print arXiv:1412.5746).

[6] "Equilibration, thermalisation, and the emergence of statistical mechanics in closed quantum systems",
C. Gogolin, J. Eisert,
Reports on Progress in Physics **79**, 056001 (2016),
(Lanl e-print arXiv:1503.07538).

[7] "Quantum many-body systems out of equilibrium",
J. Eisert, M. Friesdorf, C. Gogolin,
Nature Physics **11**, 124 (2015),
(Lanl e-print arXiv:1408.5148).

[8] "Many-body localisation implies that eigenvectors are matrix-product states",
M. Friesdorf, A. H. Werner, W. Brown, V. B. Scholz, J. Eisert,
Comments: 13 pages, 4 figures *Physical Review Letters* **114**, 170505 (2015),
(Lanl e-print arXiv:1409.1252).

[9] "Observation of non-Markovian micro-mechanical Brownian motion",
S. Groeblacher, A. Trubarov, N. Prigge, M. Aspelmeyer, J. Eisert,
Nature Communications **6**, 7606 (2015),
(Lanl e-print arXiv:1305.1953).

[10] "Advances in quantum teleportation",
S. Pirandola, J. Eisert, C. Weedbrook, A. Furusawa, S. L. Braunstein,
Nature Photonics **9**, 641 (2015),
(Lanl e-print arXiv:1505.07831).

[11] "Towards experimental quantum field tomography with ultracold atoms",
A. Steffens, M. Friesdorf, T. Langen, B. Rauer, T. Schweigler, R. Huebener, J. Schmiedmayer, C. A. Riofrio, J. Eisert,
Nature Communications **6**, 7663 (2015),
(Lanl e-print arXiv:1406.3632).

[12] "Reliable quantum certification for photonic quantum technologies",
L. Aolita, C. Gogolin, M. Kliesch, J. Eisert
Nature Communications **6**, 8498 (2015),
(Lanl e-print arXiv:1407.4817).

[13] "Cellular-automaton decoders for topological quantum memories",
M. Herold, E. T. Campbell, J. Eisert, M. J. Kastoryano,
Nature PJ Quantum Information **1**, 15010 (2015),
(Lanl e-print arXiv:1406.2338).

[14] "Matrix product operators and states - NP-hardness and undecidability",
M. Kliesch, D. Gross, J. Eisert,
Physical Review Letters **113**, 160503 (2014),
(Lanl e-print arXiv:1404.4466).

[15] "Locality of temperature",
M. Kliesch, C. Gogolin, M. J. Kastoryano, A. Riera, J. Eisert,
Physical Review X **4**, 031019 (2014),
(Lanl e-print arXiv:1309.0816).

[16] "Breakdown of quasilocality in long-range quantum lattice models",
J. Eisert, M. van den Worm, S. R. Manmana, M. Kastner,
Physical Review Letters **111**, 260401 (2013),
(Lanl e-print arXiv:1309.2308).

[17] "Wick's theorem for matrix product states",
R. Hübener, A. Mari, J. Eisert,
Physical Review Letters **110**, 040401 (2013),
(Lanl e-print arXiv:1207.6537).

[18] "Precisely timing dissipative quantum information processing",
M. J. Kastoryano, M. M. Wolf, J. Eisert,
Physical Review Letters **110**, 110501 (2013),
(Lanl e-print arXiv:1205.0985).

[19] "Probing the relaxation towards equilibrium in an isolated strongly correlated 1D Bose gas",
S. Trotzky, Y.-A. Chen, A. Flesch, I. P. McCulloch, U. Schollwöck, J. Eisert, I. Bloch,
Nature Physics **8**, 325 (2012),
(Lanl e-print arXiv:1101.2659).

[20] "Positive Wigner functions render classical simulation of quantum computation efficient",
A. Mari, J. Eisert,
Physical Review Letters **109**, 230503 (2012),
(Lanl e-print 1208.3660).

[21] "Quantum measurement occurrence is undecidable",
J. Eisert, M. P. Mueller, C. Gogolin,
Physical Review Letters **108**, 260501 (2012),
(Lanl e-print arXiv:1111.3965).

[22] "Gaussification and entanglement distillation of continuous variable systems: a unifying picture",
E. T. Campbell, J. Eisert,
Physical Review Letters **108**, 020501 (2012),
(Lanl e-print arXiv:1107.1406).

[23] "Extracting dynamical equations from experimental data is NP hard',
T. S. Cubitt, J. Eisert, M. M. Wolf,
Physical Review Letters **108**, 120503 (2012),
(Lanl e-print arXiv:1005.0005).

[24] "Cooling by heating",
A. Mari, J. Eisert,
Physical Review Letters **108**, 120602 (2012),
(Lanl e-print arXiv:1104.0260).

[25] "Thermalization in nature and on a quantum computer,
A. Riera, C. Gogolin, J. Eisert,
Physical Review Letters **108**, 080402 (2012),
(Lanl e-print arXiv:1102.2389).

[26] "Deciding whether a quantum channel is Markovian is NP-hard",
T. S. Cubitt, J. Eisert, M. M. Wolf,
Communications in Mathematical Physics **310**, 383 (2012)
(Lanl e-print arXiv:0908.2128).

[27] "A dissipative quantum Church-Turing theorem",
M. Kliesch, T. Barthel, C. Gogolin, M. Kastoryano, J. Eisert,
Physical Review Letters **107**, 120501 (2011),
(Lanl e-print arXiv:1105.3986).

[28] "Entangled inputs cannot make imperfect quantum channels perfect",
F. G. S. L. Brandao, J. Eisert, M. Horodecki, D. Yang,
Physical Review Letters **106**, 230502 (2011),
(Lanl e-print arXiv:1010.5074).

[29] "Absence of thermalization in non-integrable systems",
C. Gogolin, M. P. Mueller, J. Eisert,
Physical Review Letters **106**, 040401 (2011),
(Lanl e-print arXiv:1009.2493).

[30] "Experimental implementation of the optimal linear-optical controlled phase gate",
K. Lemr, A. Cernoch, J. Soubusta, K. Kieling, J. Eisert, M. Dusek,
Physical Review Letters **106**, 013602 (2011),
(Lanl e-print arXiv:1007.4797).

[31] "Preparing the bound instance of quantum entanglement",
J. DiGuglielmo, A. Samblowski, B. Hage, C. Pineda, J. Eisert, R. Schnabel,
Physical Review Letters **107**, 240503 (2011),
(Lanl e-print arXiv:1006.4651).

[32] "Directly estimating non-classicality",
A. Mari, K. Kieling, B. Melholt Nielsen, E.S. Polzik, J. Eisert,
Physical Review Letters **106**, 010403 (2011),
(Lanl e-print arXiv:1005.1665).

[33] "Concentration of measure for quantum states with a fixed expectation value",
M. Mueller, D. Gross, J. Eisert,
Communications in Mathematical Physics **303**, 785 (2010),
(Lanl e-print arXiv:1003.4982).

[34] "Holographic quantum states",
T. J. Osborne, J. Eisert, F. Verstraete,
Physical Review Letters **105**, 260401 (2010),
(Lanl e-print arXiv:1005.1268).

[35] "Solving frustration-free spin systems",
N. de Beaudrap, M. Ohliger, T. J. Osborne, J. Eisert,
Physical Review Letters **105**, 060504 (2010),
(Lanl e-print arXiv:1005.3781).

[36] "Real-space renormalization yields finite correlations",
T. Barthel, M. Kliesch, J. Eisert,
Physical Review Letters **105**, 010502 (2010),
(Lanl e-print arXiv:1003.2319).

[37] "Quantum state tomography via compressed sensing",
D. Gross, Y.-K. Liu, S.T. Flammia, S. Becker, J. Eisert,
Physical Review Letters **105**, 150401 (2010),
(Lanl e-print arXiv:0909.3304).

[38] "Area laws for the entanglement entropy",
J. Eisert, M. Cramer, M. B. Plenio,
Reviews of Modern Physics **82**, 277 (2010),
(Lanl e-print arXiv:0808.3773).

[39] "Most quantum states are too entangled to be useful as computational resources",
D. Gross, S. Flammia, J. Eisert,
Physical Review Letters **102**, 190501 (2009),
(Lanl e-print arXiv:0810.4331).

[40] "Entanglement combing",
D. Yang, J. Eisert,
Physical Review Letters **103**, 220501 (2009),
(Lanl e-print arXiv:0907.4757).

[41] "Gently modulating opto-mechanical systems",
A. Mari, J. Eisert,
Physical Review Letters **103**, 213603 (2009).
(Lanl e-print arXiv:0911.0433).

[42] "Tomography of quantum detectors",
J. S. Lundeen, A. Feito, H. Coldenstrodt-Ronge, K. L. Pregnell, Ch. Silberhorn, T. C. Ralph, J. Eisert, M. B. Plenio, I. A. Walmsley,
Nature Physics **5**, 29 (2009),
(Lanl e-print arXiv:0807.2444).

[43] "Supersonic quantum communication",
D. Gross, J. Eisert,
Physical Review Letters **102**, 240501 (2009),
(Lanl e-print arXiv:0808.3581).

[44] "Entangled families",
M. Aspelmeyer, J. Eisert,
Nature **455**, 180 (2008).

[45] "Assessing non-Markovian dynamics",
M. M. Wolf, J. Eisert, T. S. Cubitt, J. I. Cirac,
Physical Review Letters **101**, 150402 (2008),
(Lanl e-print arXiv:0711.3172).

[46] "Exploring local quantum many-body relaxation by atoms in optical superlattices",
M. Cramer, A. Flesch, I.P. McCulloch, U. Schollwöck, J. Eisert,
Physical Review Letters **101**, 063001 (2008),
(Lanl e-print arXiv:0805.0798).

[47] "Quenching, relaxation, and a central limit theorem for quantum lattice systems",
M. Cramer, C. Dawson, J. Eisert, T. J. Osborne,
Physical Review Letters **100**, 030602 (2008),
(Lanl e-print cond-mat/0703314).

[48] "Unifying simulation methods of quantum many-body systems",
C.M. Dawson, J. Eisert, T. J. Osborne
Physical Review Letters **100**, 130501 (2008),
(Lanl e-print arXiv:0705.3456).

[49] "Do mixtures of bosonic and fermionic atoms adiabatically heat up in optical lattices?",
M. Cramer, S. Ospelkaus, C. Ospelkaus, K. Bongs, K. Sengstock, J. Eisert,
Physical Review Letters **100**, 140409 (2008),
(Lanl e-print arXiv:0707.3633).

[50] "Percolation, renormalization, and quantum computing with non-deterministic gates",
K. Kieling, T. Rudolph, J. Eisert,
Physical Review Letters **99**, 130501 (2007),
(Lanl e-print quant-ph/0611140).

[51] "Covariance matrices and the separability problem",
O. Gühne, P. Hyllus, O. Gittsovich, J. Eisert,
Physical Review Letters **99**, 130504 (2007),
(Lanl e-print quant-ph/0611282).

[52] "Novel schemes for measurement-based quantum computation",
D. Gross, J. Eisert,
Physical Review Letters **98**, 220503 (2007),
(Lanl e-print quant-ph/0609149).

[53] "Statistics dependence of the entanglement entropy",
M. Cramer, J. Eisert, M. B. Plenio,
Physical Review Letters **98** (2007),
(Lanl e-print quant-ph/0611264).

[54] "Creating and probing macroscoping entanglement with light",
M. Paternostro, D. Vitali, S. Gigan, M. S. Kim, C. Brukner, J. Eisert, M. Aspelmeyer,
Physical Review Letters **99**, 250401 (2007),
(Lanl e-print quant-ph/0609210).

[55] "Gaussian quantum marginal problem",
J. Eisert, T. Tyc, T. Rudolph, B. Sanders,
Communications in Mathematical Physics **280**, 263 (2007),
(Lanl e-print quant-ph/0703225).

[56] "Computational difficulty of global variations in the density matrix renormalization group",
J. Eisert,
Physical Review Letters **97**, 260501 (2006),
(Lanl e-print quant-ph/0609051).

[57] "General entanglement scaling from time evolution",
J. Eisert, T. J. Osborne,
Physical Review Letters **97**, 150404 (2006),
(Lanl e-print quant-ph/0603114).

[58] "Optimizing linear optics quantum gates",
J. Eisert,
Physical Review Letters **95**, 040502 (2005),
(Lanl e-print quant-ph/0409156).

[59] "Entropy, entanglement, and area: analytical results for harmonic lattice systems",
M. B. Plenio, J. Eisert, J. Dreissig, M. Cramer,
Physical Review Letters **94**, 060503 (2005),
(Lanl e-print quant-ph/0409156).

[60] "Exact decoherence to pointer states in free open quantum systems is universal",
J. Eisert,
Physical Review Letters **92**, 210401 (2004),
(Lanl e-print quant-ph/0311022).

[61] "Towards mechanical entanglement in nano-electromechanical devices",
J. Eisert, M. B. Plenio, S. Bose, J. Hartley,
Physical Review Letters **93**, 190402 (2004),
(Lanl e-print quant-ph/0311113).

[62] "Inhomogeneous Bose-Fermi mixtures in cubic lattices".
M. Cramer, J. Eisert, F. Illuminati,
Physical Review Letters, **93**, 190405 (2004),
(Lanl e-print cond-mat/0310705).

[63] "The entangling power of passive optical elements",
M. M. Wolf, J. Eisert, M. B. Plenio,
Physical Review Letters **90**, 047904 (2003),
(Lanl e-print quant-ph/0206171).

[64] "The entanglement cost under operations preserving the positivity of partial transpose",
K. Audenaert, M. B. Plenio, J. Eisert,
Physical Review Letters **90**, 027901 (2003),
(Lanl e-print quant-ph/0207146).

[65] "Distilling Gaussian states with Gaussian operations is impossible",
J. Eisert, S. Scheel, M. B. Plenio,
Physical Review Letters **89**, 137903 (2002),
(Lanl e-print quant-ph/0204052).

[66] "Quantum and classical correlations in quantum Brownian motion",
J. Eisert, M. B. Plenio,
Physical Review Letters **89**, 137902 (2002),
(Lanl e-print quant-ph/0111016).

[67] "Conditions for the local manipulation of Gaussian states",
J. Eisert, M. B. Plenio,
Physical Review Letters **89**, 097901 (2002),
(Lanl e-print quant-ph/0109126).

[68] "Reply: Quantum games and quantum strategies",
J. Eisert, M. Wilkens, M. Lewenstein,
Physical Review Letters **87**, 069802 (2001).

[69] "The asymptotic relative entropy of entanglement",
K. Audenaert, J. Eisert, E. Jane, M. B. Plenio, S. Virmani, B. de Moor,
Physical Review Letters **87**, 217902 (2001),
(Lanl e-print quant-ph/9912080).

[70] "Catalysis of entanglement manipulation for mixed states",
J. Eisert and M. Wilkens,
Physical Review Letters **85**, 437 (2000),
(Lanl e-print quant-ph/9912080).

[71] "Classical information and distillable entanglement",
J. Eisert, T. Felbinger, P. Papadopoulos, M. B. Plenio, M. Wilkens,
Physical Review Letters **84**, 1611 (2000),
(Lanl e-print quant-ph/9907021).

[72] "Quantum games and quantum strategies",
J. Eisert, M. Wilkens, M. Lewenstein,
Physical Review Letters **83**, 3077 (1999),
(Lanl e-print quant-ph/9806088).

REGULAR REFEREED PAPERS

[73] "Drude weight fluctuations in many-body localized systems",
M. Filippone, P. W. Brouwer, J. Eisert, F. von Oppen,
Physical Review B **94**, 201112 (2016),
(Lanl e-print arXiv:1606.07291).

[74] "Estimating strong correlations in optical lattices",
J. Gertis, M. Friesdorf, C. A. Riofrio, J. Eisert,
Physical Review A **94**, 053628 (2016),
(Lanl e-print arXiv:1606.01913).

[75] "Direct certification of a class of quantum simulations",
D. Hangleiter, M. Kliesch, M. Schwarz, J. Eisert,
Quantum Science and Technology **1**, in press (2016),
(Lanl e-print arXiv:1511.05579).

[76] "Work and entropy production in generalised Gibbs ensembles",
M. Perarnau-Llobet, A. Riera, R. Gallego, H. Wilming, J. Eisert,
New Journal of Physics **18**, 123035 (2016),
(Lanl e-print arXiv:1512.03823).

[77] "Improving compressed sensing with the diamond norm",
M. Kliesch, R. Kueng, J. Eisert, D. Gross,
IEEE Transactions in Information Theory **62**, 7445 (2016),
(Lanl e-print arXiv:1511.01513).

[78] "Thermodynamic work from operational principles",
R. Gallego, J. Eisert, H. Wilming,
New Journal of Physics **18**, 103017 (2016),
(Lanl e-print arXiv:1504.05056).

[79] "Second laws under control restrictions",
H. Wilming, R. Gallego, J. Eisert,
Physical Review E **93**, 042126 (2016),
(Lanl e-print arXiv:1411.3754).

[80] "Area laws and efficient descriptions of quantum many-body states",
Y. Ge, J. Eisert,
New Journal of Physics **18**, 083026 (2016),
(Lanl e-print arXiv:1411.2995).

[81] "Total correlations of the diagonal ensemble herald the many-body localization transition",
J. Goold, S. R. Clark, C. Gogolin, J. Eisert, A. Scardicchio, A. Silva,
Physical Review B **92**, 180202(R) (2015),
(Lanl e-print arXiv:1504.06872).

[82] "Continuous matrix product state tomography of quantum transport experiments",
G. Haack, A. Steffens, J. Eisert, R. Hübener,
New Journal of Physics **17**, 113024 (2015),
(Lanl e-print arXiv:1504.04194).

[83] "Local constants of motion imply information propagation",
M. Friesdorf, A. H. Werner, M. Goihl, J. Eisert, W. Brown,
New Journal of Physics **17**, 113054 (2015),
(Lanl e-print arXiv:1504.06872).

[84] "Limits to catalysis in quantum thermodynamics",
N. H. Y. Ng, L. Mancinska, C. Cirstoiu, J. Eisert, S. Wehner,
New Journal of Physics **17**, 085004 (2015),
(Lanl e-print arXiv:1405.3039).

[85] "Equilibration in low-dimensional quantum matrix models",
R. Hübener, Y. Sekino, J. Eisert,
Journal of High Energy Physics **2015**, 166 (2015),
(Lanl e-print arXiv:1403.1392).

[86] "Area laws for thermal free fermions",
H. Bernigau, M. J. Kastoryano, J. Eisert,
Journal of Statistical Mechanics P02008 (2015),
(Lanl e-print arXiv:1305.1953).

[87] "Quantum field tomography',
A. Steffens, C. A. Riofrio, R. Hübener, J. Eisert,
New Journal of Physics **16**, 123010 (2014),
(Lanl e-print arXiv:1406.3631).

[88] "Search for localized Wannier functions of topological band structures via compressed sensing",
J. C. Budich, J. Eisert, E. J. Bergholtz, S. Diehl, P. Zoller,
Physical Review B **90**, 115110 (2014),
(Lanl e-print arXiv:1405.6641).

[89] "Topological insulators with arbitrarily tunable entanglement scaling",
J. C. Budich, J. Eisert, E. J. Bergholtz,
Physical Review B **89**, 195120 (2014),
(Lanl e-print arXiv:1311.3309).

[90] "Thermal machines beyond the weak coupling regime",
R. Gallego, A. Riera, J. Eisert,
New Journal of Physics **16**, 125009 (2014),
(Lanl e-print arXiv:1311.3309).

[91] "Majorana fermions and non-locality",
E. T. Campbell, M. J. Hoban, J. Eisert,
Quantum Information and Computation **14**, 0981 (2014),
(Lanl e-print arXiv:1305.1953).

[92] "Entanglement of nano-electromechanical oscillators by Cooper-pair tunneling",
S. Walter, J. Carl Budich, J. Eisert, B. Trauzettel,
Physical Review B **88**, 035441 (2013),
(Lanl e-print arXiv:1210.0665).

[93] "Rapid mixing implies exponential decay of correlations",
M. Kastoryano, J. Eisert,
Journal of Mathematical Physics **54**, 102201 (2013).
(Lanl e-print arXiv:1303.6304).

[94] "Entanglement and tensor network states",
J. Eisert,
Modeling and Simulation **3**, 520 (2013),
(Lanl e-print arXiv:1308.3318).

[95] "Continuous-variable entanglement distillation and non-commutative central limit theorems",
E. T. Campbell, M. G. Genoni, J. Eisert,
Physical Review A **87**, 042330 (2013),
(Lanl e-print arXiv:1211.54830).

[96] "Efficient and feasible state tomography of quantum many-body systems",
M. Ohliger, V. Nesme, J. Eisert,
New Journal of Physics **15**, 015024 (2012),
(Lanl e-print arXiv:1204.5735).

[97] "Opto- and electro-mechanical entanglement improved by modulation",
A. Mari, J. Eisert,
New Journal of Physics **14**, 075014 (2012),
(Lanl e-print arXiv:1111.2415).

[98] "Recursive quantum detector tomography",
L. Zhang, A. Datta, H. B. Coldenstrodt-Ronge, X.-M. Jin, J. Eisert, M. B. Plenio, I. A. Walmsley,
New Journal of Physics **14**, 115005 (2012),
(Lanl e-print arXiv:1207.3501).

[99] "Quantum tomography via compressed sensing: Error bounds, sample complexity, and efficient estimators",
S. T. Flammia, D. Gross, Y.-K. Liu, J. Eisert,
New Journal of Physics **14**, 095022 (2012),
(Lanl e-print arXiv:1205.2300).

[100] "Efficient measurement-based quantum computing with continuous-variable systems",
M. Ohliger, J. Eisert,
Physical Review A **85**, 062318 (2012),
(Lanl e-print arXiv:1112.2641).

[101] "Tensor network methods with graph enhancement",
R. Hübener, C. Kruszynska, L. Hartmann, W. Dür, M. B. Plenio, J. Eisert,
Physical Review B **84**, 125103 (2011),
(Lanl e-print 1101.1874).

[102] "Information propagation for interacting particle systems",
N. Schuch, S. K. Harrison, T. J. Osborne, J. Eisert,
Physical Review A **84**, 032309 (2011),
(Lanl e-print arXiv:1010.4576).

[103] "The optimal unitary dilation for bosonic Gaussian channels",
F. Caruso, J. Eisert, V. Giovannetti, A. S. Holevo,
Physical Review A **84**, 022306 (2011),
(Lanl e-print arXiv:1009.1108).

[104] "Continuity bounds on the quantum relative entropy - II",
K. M. R. Audenaert, J. Eisert,
Journal of Mathematical Physics **52**, 112201 (2011),
(Lanl e-print arXiv:1105.2656).

[105] "Unitary circuits for strongly correlated fermions",
C. Pineda, T. Barthel, J. Eisert,
Physical Review A **81**, 050303(R) (2010),
(Lanl e-print arXiv:0905.0669).

[106] "Limitations of quantum computing with Gaussian cluster states",
M. Ohliger, K. Kieling, J. Eisert,
Physical Review A **82**, 042336 (2010),
(Lanl e-print arXiv:1004.0081).

[107] “Entanglement quantification from incomplete measurements: Applications using photon-number-resolving weak homodyne detectors",
G. Puentes, A. Feito, A. Datta, J. Eisert, M. B. Plenio, I. A. Walmsley,
New Journal of Physics **12**, 033042 (2010),
(Lanl e-print arxiv.org:0911.2482).

[108] “Ground states of frustration-free spin Hamiltonians satisfy an area law",
N. de Beaudrap, T. J. Osborne, J. Eisert,
New Journal of Physics **12**, 095007 (2010).

[109] “Quantum computational webs”,
D. Gross, J. Eisert,
Physical Review A **82**, 040303(R) (2010),
(Lanl e-print arXiv:0810.2542).

[110] “A quantum central limit theorem for quantum lattice systems”,
M. Cramer, J. Eisert,
New Journal of Physics **12**, 055020 (2009),
(Lanl e-print arXiv:0911.2475).

[111] “Contraction of fermionic operator circuits and the simulation of strongly correlated fermions”,
T. Barthel, C. Pineda, J. Eisert,
Physical Review A **80**, 042333 (2009),
(Lanl e-print arXiv:0907.3689).

[112] “A renormalization algorithm with graph enhancement”,
R. Hübener, C. Kruszynska, L. Hartmann, W. Dür, F. Verstraete, J. Eisert, M. B. Plenio,
Physical Review A **79**, 022317 (2009),
(Lanl e-print arXiv:0802.1211).

[113] “Information propagation through quantum chains with fluctuating disorder”,
C. K. Burrell, J. Eisert, T. J. Osborne,
Physical Review A **80**, 052319 (2009),
(Lanl e-print arXiv:0809.4833).

[114] “On photonic controlled phase gates”,
K. Kieling, J. L. O’Brien, J. Eisert,
New Journal of Physics **12**, 013003 (2009),
(Lanl e-print arXiv:0909.2057).

[115] “A proposed testbed for detector tomography”,
H. Coldenstrodt-Ronge, J. S. Lundeen, A. Feito, B. J. Smith, W. Mauerer, Ch. Silberhorn, J. Eisert, M. B. Plenio, I. A. Walmsley,
Journal of Modern Optics **56**, 432 (2009),
(Lanl e-print arXiv:0807.2444).

[116] “Measuring measurement: Theory and practice”,
A. Feito, J. S. Lundeen, H. Coldenstrodt-Ronge, J. Eisert, M. B. Plenio, I. A. Walmsley,
New Journal of Physics **11**, 093038 (2009),
(Lanl e-print arXiv:0807.2444).

[117] “Two-dimensional characterization of spatially entangled photon pairs”,
M. Ostermeyer, D. Korn, D. Puhlmann, C. Henkel, J. Eisert,
Journal of Modern Optics **56**, 1829 (2009).

[118] "Multi-mode bosonic Gaussian channels",
F. Caruso, J. Eisert, V. Giovannetti, A. S. Holevo,
New Journal of Physics **10**, 083030 (2008),
(Lanl e-print arXiv:0902.4384).

[119] "Locality of dynamics in general harmonic quantum systems",
M. Cramer, A. Serafini, J. Eisert,
in "Quantum Information and Many-Body Quantum Systems" special issue, March 2007,
(Lanl e-print arXiv:0803.0890).

[120] "Unifying several separability conditions using the covariance matrix criterion",
O. Gittsovich, O. Gühne, P. Hyllus, J. Eisert
Physical Review A **78**, 052319 (2008),
(Lanl e-print arXiv:0803.0757).

[121] "Probing local relaxation of cold atoms in optical superlattices",
A. Flesch, M. Cramer, I. P. McCulloch, U. Schollwöck, J. Eisert,
Physical Review A **78**, 033608 (2008),
(Lanl e-print arXiv:0808.3779).

[122] "Correlated entanglement distillation and the structure of the set of undistillable states",
F. G. S. L. Brandao, J. Eisert,
Journal of Mathematical Physics **49**, 042102 (2008),
(Lanl e-print arXiv:0709.3835).

[123] "Quantum Margulis expanders",
D. Gross, J. Eisert,
Quantum Information and Computation **8**, 722 (2008),
(Lanl e-print arXiv:0710.0651).

[124] "Measurement-based quantum computation beyond the one-way model",
D. Gross, J. Eisert, N. Schuch, D. Perez-Garcia
Physical Review A **76**, 052315 (2007),

[125] "A general linear-optical quantum state generator",
N. M. VanMeter, P. Lougovski, B. Uskov, K. Kieling, J. Eisert, J. P. Dowling,
Physical Review A **76**, 063808 (2007),
(Lanl e-print quant-ph/0612154).

[126] "Cluster state preparation using gates operating at arbitrary success probabilities",
K. Kieling, D. Gross, J. Eisert,
New Journal of Physics **9**, 200 (2007),
(Lanl e-print quant-ph/0703045).

[127] "Experimental feasibility of continuous-variable optical entanglement distillation",
J. Eisert, M. B. Plenio, D.E. Browne, S. Scheel, A. Feito,
Optics and Spectroscopy **103**, 181 (2007),
(Lanl e-print quant-ph/0604163).

[128] "Quantitative entanglement witnesses",
J. Eisert, F. Brandao, K. M. R. Audenaert,
New Journal of Physics **9**, 46 (2007),
(Lanl e-print quant-ph/0607167).

[129] "Potential and limits to cluster state quantum computing using probabilistic gates",
D. Gross, K. Kieling, J. Eisert,
Physical Review A **74**, 042343 (2006),
(Lanl e-print quant-ph/0605014).

[130] "Minimal resources for linear optical one-way computing",
K. Kieling, D. Gross, J. Eisert,
Journal of the Optical Society of America, B **24**(2), 184 (2007),
(Lanl e-print quant-ph/0601190).

[131] "Evenly distributed unitaries: on the structure of unitary designs",
D. Gross, K. Audenaert, J. Eisert,
Journal of Mathematical Physics **48**, 052104 (2007),
(Lanl e-print quant-ph/0611027).

[132] "Graph states",
M. Hein, W. Dür, J. Eisert, R. Raussendorf, M. Van den Nest, H.-J. Briegel,
Nuovo Cimento, in press (2007),
(Lanl e-print quant-ph/0602096).

[133] "Optimal entanglement witnesses for continuous-variable systems",
P. Hyllus and J. Eisert,
New Journal of Physics **8**, 51 (2006),
(Lanl e-print quant-ph/0510077).

[134] "Correlations, spectral gap, and entanglement in harmonic quantum systems on generic lattices",
M. Cramer and J. Eisert,
New Journal of Physics **8**, 71 (2006),
(Lanl e-print quant-ph/0509167).

[135] "Half the entanglement in critical systems is distillable from a single specimen",
R. Orus, J. I. Latorre, J. Eisert, M. Cramer,
Physical Review A **73**, 060303(R) (2006),
(Lanl e-print quant-ph/0509023).

[136] "Feed-forward and its role in conditional linear optical quantum dynamics".
S. Scheel, W. J. Munro, J. Eisert, K. Nemoto, P. Kok
Physical Review A **73**, 034301 (2006),
(Lanl e-print quant-ph/0509075).

[137] "Single-copy entanglement in critical spin chains",
J. Eisert, M. Cramer,
Physical Review A **72**, 042112 (2005),
(Lanl e-print quant-ph/0506250).

[138] "An entanglement-area law for general bosonic harmonic lattice systems",
M. Cramer, J. Eisert, M. B. Plenio, J. Dreissig,
Physical Review A **73**, 012309 (2006),
(Lanl e-print quant-ph/0505092).

[139] "Continuity bounds on the relative entropy",
K. Audenaert, J. Eisert,
Journal of Mathematical Physics **46**, 102104 (2005),
(Lanl e-print quant-ph/0503218).

[140] "Optical generation of matter qubit graph states",
S.C. Benjamin, J. Eisert, T. Stace,
New Journal of Physics **7**, 194 (2005),
(Lanl e-print quant-ph/0506110).

[141] "Classical information capacity of a class of quantum channels",
M. M. Wolf, J. Eisert,
New Journal of Physics **7**, 93 (2005),
(Lanl e-print quant-ph/0412133).

[142] "Quantifying multi-photon entanglement".
G.A. Durkin, C. Simon, J. Eisert, D. Bouwmeester,
Physical Review A **70**, 062305 (2005),
(Lanl e-print quant-ph/0402053).

[143] "Multiplicativity of maximal output purities of Gaussian channels under Gaussian inputs".
A. Serafini, J. Eisert, M. M. Wolf,
Physical Review A **71**, 012320 (2005),
(Lanl e-print quant-ph/0406065).

[144] "Distillation of continuous-variable entanglement with optical means",
J. Eisert, D. Browne, S. Scheel, M. B. Plenio,
Annals of Physics (NY) **311**, 431 (2004),
(Lanl e-print quant-ph/0307106).

[145] "Hierarchies of efficient approximations in entanglement theory",
J. Eisert, P. Hyllus, O. Gühne, M. Curty,
Physical Review A **70**, 062317 (2004),
(Lanl e-print quant-ph/0407135).

[146] "Multi-particle entanglement in graph states",
M. Hein, J. Eisert, H.J. Briegel,
Physical Review A **69**, 062311 (2004),
(Lanl e-print quant-ph/0307130).

[147] "Dynamics and manipulation of entanglement in coupled harmonic systems with many degrees of freedom",
M. B. Plenio, J. Hartley, J. Eisert,
New Journal of Physics **6**, 36 (2004),
(Lanl e-print quant-ph/0402004).

[148] "Introduction to the theory of continuous-variable entanglement",
J. Eisert, M. B. Plenio,
International Journal of Quantum Information **1**, 479 (2003),
(Lanl e-print quant-ph/0312071).

[149] "Entanglement measures and non-local state distinguishability",
J. Eisert, K. Audenaert, M. B. Plenio,
Journal of Physics A **36**, 5605 (2003),
(Lanl e-print quant-ph/0212007).

[150] "Mixtures of bosonic and fermionic atoms in optical lattices",
A. Albus, F. Illuminati, J. Eisert,
Physical Review A **68**, 023606 (2003),
(Lanl e-print cond-mat/0304223).

[151] "Driving non-Gaussian states to Gaussians with linear optics",
D. Browne, J. Eisert, S. Scheel, M. B. Plenio,
Physical Review A **67**, 062320 (2003),
(Lanl e-print quant-ph/0211173).

[152] "Entanglement transformations of pure Gaussian states",
G. Giedke, J. Eisert, J. I. Cirac, M. B. Plenio,
Quantum Information and Computation **3**, 211 (2003),
(Lanl e-print quant-ph/0301038).

[153] "Hot entanglement in a simple dynamical model",
S. Scheel, J. Eisert, P. L. Knight, M. B. Plenio
Journal of Modern Optics **50**, 881 (2003),
(Lanl e-print quant-ph/0207120).

[154] "Quantification of entanglement in infinite-dimensional quantum systems",
J. Eisert, C. Simon, M. B. Plenio,
Journal of Physics A **35**, 3911 (2002),
(Lanl e-print quant-ph/0112064).

[155] "Entanglement of infinite oscillator chains",
K. Audenaert, J. Eisert, M. B. Plenio, R.F. Werner,
Physical Review A **66**, 042327 (2002),
(Lanl e-print quant-ph/0205025).

[156] "The Schmidt measure as a tool for quantifying multi-particle entanglement",
J. Eisert, H.-J. Briegel,
Physical Review A **64**, 022306 (2001),
(Lanl e-print quant-ph/9912080).

[157] "Quantum games",
J. Eisert, M. Wilkens,
Journal of Modern Optics **47**, 2543 (2000),
(Lanl e-print quant-ph/0004076).

[158] "Optimal local implementation of non-local quantum gates",
J. Eisert, K. Jacobs, P. Papadopoulos, M. B. Plenio,
Physical Review A **62**, 052317 (2000),
(Lanl e-print quant-ph/0005101).

[159] "A comparison of entanglement measures",
J. Eisert, M. B. Plenio,
Journal of Modern Optics **46**, 145 (1999),
(Lanl e-print quant-ph/9807034).

[160] "Integral equation method for the continuous spectrum radial Schrödinger equation",
R. A. Gonzales, J. Eisert, I. Koltracht, M. Neumann, G. Rawitscher,
Journal of Computational Physics **134**, 134 (1997).

SUBMITTED WORK AND PREPRINTS

[161] "Fermionic topological quantum states as tensor networks",
C. Wille, O. Buerschaper, J. Eisert,
(Lanl e-print arXiv:1609.02574).

[162] "Entanglement negativity bounds for fermionic Gaussian states",
J. Eisert, V. Eisler, Z. Zimboras,
(Lanl e-print arXiv:1611.08007).

[163] "Quantum thermodynamics with local control",
J. Lekscha, H. Wilming, J. Eisert, R. Gallego,
(Lanl e-print arXiv:1612.00029).

[164] "Reliable recovery of hierarchically sparse signals and application in machine-type communications",
I. Roth, M. Kliesch, G. Wunder, J. Eisert,
(Lanl e-print arXiv:1612.07806).

[165] "Quantum source-channel codes",
F. Pastawski, J. Eisert, H. Wilming,
(Lanl e-print arXiv:1611.07528).

[166] "Experimentally exploring compressed sensing quantum tomography",
A. Steffens, C. Riofrio, W. McCutcheon, I. Roth, B. A. Bell, A. McMillan, M. S. Tame, J. G. Rarity, J. Eisert,
(Lanl e-print arXiv:1611.01189).

[167] "An efficient quantum algorithm for spectral estimation",
A. Steffens, P. Rebentrost, I. Marvian, J. Eisert, S. Lloyd,
(Lanl e-print arXiv:1609.08170).

[168] "Experimental quantum compressed sensing for a seven-qubit system",
C. A. Riofrio, D. Gross, S. T. Flammia, T. Monz, D. Nigg, R. Blatt, J. Eisert,
(Lanl e-print arXiv:1608.02263).

[169] "Approximating local observables on projected entangled pair states",
M. Schwarz, O. Buerschaper, J. Eisert,
(Lanl e-print arXiv:1606.06301).

[170] "Mixing properties of stochastic quantum Hamiltonians",
E. Onorati, O. Buerschaper, M. Kliesch, W. Brown, A. H. Werner, J. Eisert,
(Lanl e-print arXiv:1606.01914).

[171] "Emergence of spontaneous symmetry breaking in dissipative lattice systems",
H. Wilming, M. J. Kastoryano, A. H. Werner, J. Eisert,
(Lanl e-print arXiv:1602.01108).

[172] "Experimentally accessible witnesses of many-body localisation",
M. Goihl, M. Friesdorf, A. H. Werner, W. Brown, J. Eisert,
(Lanl e-print arXiv:1601.02666).

[173] "Fault tolerant dynamical decoders for topological quantum memories",
M. Herold, M. J. Kastoryano, E. T. Campbell, J. Eisert,
(Lanl e-print arXiv:1511.05579).

[174] "Uncertainty quantification for matrix compressed sensing and quantum tomography problems",
A. Carpentier, J. Eisert, D. Gross, R. Nickl,

(Lanl e-print arXiv:1504.03234).

[175] "Boson-sampling in the light of sample complexity",
C. Gogolin, M. Kliesch, L. Aolita, and J. Eisert,

(Lanl e-print arXiv:1306.3995).

[176] "Continuous-variable quantum compressed sensing",
M. Ohliger, V. Nesme, D. Gross, Y.-K. Liu, J. Eisert,

(Lanl e-print arXiv:1111.0853).

[177] "Noise-driven quantum criticality",
J. Eisert, T. Prosen,

(Lanl e-print arXiv:1012.5013).

CONTRIBUTION TO BOOKS

[178] "Multi-partite entanglement",
M. Walter, D. Gross, J. Eisert

invited book chapter of "Quantum Information Theory", Second edition
Eds. D. Bruss, G. Leuchs

VCH (Weinheim, 2017).

(Lanl e-print arXiv:1612.02437).

[179] "Lieb-Robinson bounds and the simulation of time evolution of local observables in lattice systems",
M. Kliesch, C. Gogolin, J. Eisert,

invited book chapter of the "Many-Electron Approaches in Physics, Chemistry and Mathematics",
Eds. L. D. Site and V. Bach, 2014
Springer, Mathematical Physics Studies,

(Lanl e-print arXiv:1305.6942).

[180] "Quantum computation",
J. Eisert, M. M. Wolf,

invited book chapter of the "Handbook of innovative computational paradigms",
Eds. A. Zomaya, G. Milburn et al., 2006,

Springer (Heidelberg, London, New York).

(Lanl e-print quant-ph/0401019).

[181] "Multi-particle entanglement",
J. Eisert, D. Gross,

invited book chapter of "Quantum Information Theory",
Eds. D. Bruss, G. Leuchs

VCH (Weinheim, 2007).

(Lanl e-print quant-ph/0505149).

[182] "From discrete to continuous variable systems",
J. Eisert,

invited book chapter of "Quantum Information Theory",
Eds. D. Bruss, G. Leuchs

VCH (Weinheim, 2007).

[183] "Gaussian quantum channels",
J. Eisert, M. M. Wolf,
invited book chapter of "Continuous-variable quantum information science",
Eds. E. Polzik, N. Cerf, G. Leuchs,
Imperial College Press (London, 2007).
(Lanl e-print quant-ph/0505151).

[184] "Quantum effects in biology: A sceptical physicists' point of view",
H. Wiseman, J. Eisert,
invited book chapter of "Quantum aspects of life" Eds. D. Abbott
World Scientific (Singapore, 2007).

[185] "Entanglement in harmonic systems with many degrees of freedom",
K. Audenaert, J. Eisert, M. B. Plenio,
invited book chapter of "Continuous-variable quantum information science",
Eds. E. Polzik, N. Cerf, G. Leuchs,
Imperial College Press (London, 2006).

[186] "Percolation in quantum computation and communication",
K. Kieling, J. Eisert,
invited book chapter of "Percolation and Breakdown",
Springer (Heidelberg, 2009),
(Lanl e-print arXiv:0712.1836).