Curriculum Vitae

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Education

1987-1994	Ph.D., October 1994, from the University of Illinois at Urbana-Champaign, Department of Physics. Thesis Title: *The Problem of Spin and Charge Separation.* Thesis Advisor: Prof. Eduardo Fradkin.
1981-1986	Diploma of Physics, October 1986, from the ETHZ (Swiss Federal Institute of Technology at Zürich), Department of Mathematics and Physics. Thesis title: *Viability of Gluon Annihilation into a Higgs Associated to a Pair of Top Quarks as a Mechanism for detecting the Heavy Higgs in SSC.* Diploma Advisors: Prof. C. Schmid and Prof. D. Wyler.
1977-1981	Maturité C (Classical Education Option Science), June 1981, Collège Sismondi, Geneva, Switzerland.

Professional activities

2024-present	Adjunct Professor, Department of Physics, Boston University.
2018-present	Adjunct Professor, Institute of Physics, École Polytechnique Féderale de Lausanne (EPFL).
2014-2022	Member of the Forschung Kommission (FOKO) of PSI.
2009-present	Head Condensed Matter Theory Group at the Paul Scherrer Institute, Switzerland.
2002-2009	Senior Scientist at the Paul Scherrer Institute, Switzerland.
1999-2002	Scientist at the Paul Scherrer Institute, Switzerland.
1997-1999	Postdoctoral Fellow, Harvard University, USA.
1994-1997	Postdoctoral Fellow and Associate, Massachusetts Institute of Technology, Cambridge, USA.

Teaching activities

2019-present Graduate School at EPFL:

- *Some aspects of topology in condensed matter physics.*
- *Field Theory in Condensed Matter Physics.*

2002-present Lehrauftrag an der ETHZ:

- *Field Theory in Condensed Matter Physics.*

2016 Graduate School at EPFL:

- *Abelian bosonization.*

2007 Master semester at EPFL:

- *Physique du solide III.*

2001 Lehrauftrag an der Universität Zürich:

- *Field Theory in Condensed Matter Physics.*

1987-1994 Teaching Assistant, University of Illinois at Urbana-Champaign, USA:

- *Liquid Helium and Superconductivity.*
- *Advanced Solid State Physics.*
- *Solid State Physics.*
- *Statistical Mechanics.*
- *Classical Mechanics.*

1983-1985 Teaching Assistant, ETHZ:

- *Calculus for Engineer.*

Fellowships, Scholarships, and Awards

2012-2013 Member of the Advanced Study Group (ASG) on "*Topological Band Insulators and their Instabilities*" at the MPI-PKS in Dresden.

2011 Fellow of the American Physical Society.
Citation: *"For contributions to the theory of spin-charge separation in strongly correlated systems and to disorder-induced quantum criticality in metals and topological insulators"*.

2008-present Visiting Scientist, RIKEN, Japan.

2008 Visiting Fellowship, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, UK.

2004-present Visiting Scientist, Boston University, USA.

2001-2002 Visiting Research Scholar, Yukawa Institute for Theoretical Physics, Kyoto University, Japan.

1997-1999 Postdoctoral Fellowship from the Swiss National Science Foundation.

1996-1997	Postdoctoral Fellowship from the Massachusetts Institute of Technology, Cambridge, USA.
1994-1996	Postdoctoral Fellowship from the Swiss National Science Foundation.
1992-1993	Fellowship from the University of Illinois at Urbana-Champaign, USA.
1991-1992	Fellowship from IBM (International Business Machine).
1990-1991	Fellowship from the University of Illinois at Urbana-Champaign, USA.

Grants

- 2023-2027: Research Grant from the Swiss National Science Foundation for the project *"Phases of matter driven by interactions"*.
- 2019-2023: Research Grant from the Swiss National Science Foundation for the project *"The physics of local and global frustration: From disorder-induced multiferroicity to quantum topology"*.
- 2014-2019: Research Grant from the Swiss National Science Foundation for the project *"Strong frustration in magnetism and for itinerant electrons"*.
- 2010-2013: Research Grant from the Swiss National Science Foundation for the project *"Effects of strong spin-orbit coupling in noncentrosymmetric two-dimensional metals"*.
- 2007-2011: Research Grant from the Swiss National Science Foundation for the project *"Dimensional crossover in strongly anisotropic antiferromagnets"*.
- 2003-2006: Research Grant from the Swiss National Science Foundation for the project *"Theoretical investigation of the magnetic coherence and nanoscale disorder effects in high temperature superconductors"*.

Supervised PhD Students

- Michael Steinegger, 2023-2027.
- Anthony Rey, 2023-2027.
- Ömer Aksoy, 2019-2023. (Ömer Aksoy was awarded the ETHZ Thesis Silver and the PSI Thesis Medals for his pioneering PhD work. Postdoctoral position at the Massachusetts Institute of Technology.)
- Jyong-Hao Chen, 2015-2019. (Postdoctoral position at the Yukawa Institute for Theoretical Physics and assistant Professor at the Department of Physics, National Central University, Taiwan from January 2024.)
- Titus Neupert, 2010-2013. (Titus Neupert was awarded the Swiss Physical Society (SPS) 2013 Prize in General Physics and the ETH Thesis silver medal for his pioneering PhD work. Associate Professor at the Department of Physics, University of Zürich.)
- Sebastian Guerrero, 2007-2013.
- Andreas Schnyder, 2003-2006. (Andreas Schnyder is the 2015 co-recipient of the Walter-Schottky price from the Deutsche Physikalische Gesellschaft for his work on *"the classification of topological insulators and superconductor"*. Permanent Staff Scientist, Group Leader, Max Planck Institute for Solid State Research.)

Books

2. Chapter 7, *Fractional Abelian topological phases of matter for fermions in two-dimensional space*, by Christopher Mudry in: Les Houches 2014 Session CIII, *Topological Aspects of Condensed Matter Physics*, First Edition, edited by C. Chamon et al., Oxford University Press 2017.

1. *Lecture Notes on Field Theory in Condensed Matter Physics*, Christopher Mudry, World Scientific (Singapore 2014).

Publications

Peer-reviewed

100. *Lieb-Schultz-Mattis anomalies and web of dualities induced by gauging in quantum spin chains,* Ömer M. Aksoy, Christopher Mudry, Akira Furusaki, and Apoorv Tiwari, SciPost Phys. **16**, 022 (2024). `https://scipost.org/SciPostPhys.16.1.022`

99. *Designing the stripe-ordered cuprate phase diagram through uniaxial-stress,* Z. Guguchia, G. Simutis, T. Adachi, J. Küspert, N. Kitajima, M. Elender, V. Grinenko, O. Ivashko, M. v. Zimmermann. M. Müller, C. Mielke, F. Hotz, C. Mudry, C. Baines, M. Bartkowiak, T. Shiroka, Y. Koike, A. Amato, C. W. Hicks, G. D. Gu, J. M. Tranquada, H.-H. Klauss, J. J. Chang, M. Janoschek, and H. Luetkens, PNAS **121**, e2303423120, (2023). `https://doi.org/10.1073/pnas.2303423120`

98. *Single monkey-saddle singularity of a Fermi surface and its instabilities,* Ömer M. Aksoy, Anirudh Chandrasekaran, Apoorv Tiwari, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **107**, 205129 (2023).

97. *Elementary derivation of the stacking rules of invertible fermionic topological phases in one dimension,* Ömer M. Aksoy and Christopher Mudry, Phys. Rev. B **106**, 035117 (2022).

96. *Multiple mobile excitons manifested as sidebands in quasi-one-dimensional metallic $TaSe_3$,* Junzhang Ma, Simin Nie, Xin Gui, Muntaser Naamneh, Jasmin Jandke, Chuanying Xi, Jinglei Zhang, Tian Shang, Yimin Xiong, Itzik Kapon, Neeraj Kumar, Yona Soh, Daniel Gosálbez-Martinez, Oleg V. Yazyev, Wenhui Fan, Hannes Hübener, Umberto De Giovannini, Nicholas Clark Plumb, Milan Radovic, Michael Andreas Sentef, Weiwei Xie, Zhijun Wang, Christopher Mudry, Markus Müller, and Ming Shi, Nature Materials **21**, 423 (2022).

95. *Lieb-Schultz-Mattis type theorems for Majorana models with discrete symmetries,* Ömer M. Aksoy, Apoorv Tiwari, and Christopher Mudry, Phys. Rev. B **104**, 075146 (2021).

94. *Stability against contact interactions of a topological superconductor in two-dimensional space protected by time-reversal and reflection symmetries,* Ömer M. Aksoy, Jyong-Hao Chen, Shinsei Ryu, Akira Furusaki, and Christopher Mudry, Phys. Rev. B **103**, 205121 (2021). **(Editors' Suggestion)**

93. *Using Uniaxial Stress to Probe the Relationship between Competing Superconducting States in a Cuprate with Spin-stripe Order,* Z. Guguchia, D. Das, C. N. Wang, T. Adachi, N. Kitajima, M. Elender, F. Brückner, S. Ghosh, V. Grinenko, T. Shiroka, M. Müller, C. Mudry, C. Baines, M. Bartkowiak, Y. Koike, A. Amato, J. M. Tranquada, H.-H. Klauss, C. W. Hicks, and H. Luetkens, Phys. Rev. Lett. **125**, 097005 (2020).

92. *Testing of asymptomatic individuals for fast feedback-control of COVID-19 pandemics,* Markus Müller, Peter M. Derlet, Christopher Mudry, and Gabriel Aeppli, Physical Biology, Phys. Biol. **17**, 065007 (2020).

91. *Spiral order from orientationally correlated random bonds in classical XY models,* Andrea Scaramucci, Hiroshi Shinaoka, Maxim V. Mostovoy, Markus Müller, and Christopher Mudry, Phys. Rev. Research **2**, 013273 (2020).

90. *Topological many-body scar states in dimensions one, two, and three,* Seulgi Ok, Kenny Choo, Christopher Mudry, Claudio Castelnovo, Claudio Chamon, and Titus Neupert, Phys. Rev. Research **1**, 033144 (2019).

89. *Spin fluctuation induced Weyl semimetal state in the paramagnetic phase of $EuCd_2As_2$,* J.-Z. Ma, S. M. Nie, C. J. Yi, J. Jandke, T. Shang, M. Y. Yao, M. Naamneh, L. Q. Yan, Y. Sun, A. Chikina, V. N. Strocov, M. Medarde, M. Song, Y.-M. Xiong, G.Xu, W. Wulfhekel, J. Mesot, M. Reticcioli, C. Franchini, C. Mudry, M. Müller, Y. G. Shi, T. Qian, H. Ding, and M. Shi, Sci. Adv. **5**, 4718 (2019).

88. *Ground-state degeneracy of non-Abelian topological phases from coupled wires,* Thomas Iadecola, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **99**, 245138 (2019).

87. *Quantum phase transitions beyond Landau-Ginzburg theory in one-dimensional space revisited,* Christopher Mudry, Akira Furusaki, Takahiro Morimoto, and Toshiya Hikihara, Phys. Rev. B **99**, 205153 (2019).

86. *Model of spin liquids with and without time-reversal symmetry,* Jyong-Hao Chen, Christopher Mudry, Claudio Chamon, and A. M. Tsvelik, Phys. Rev. B **99**, 184445 (2019).

85. *Hierarchical Majoranas in a programmable nanowire network,* Zhi-Cheng Yang, Thomas Iadecola, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **99**, 155138 (2019).

84. *Giant pressure dependence and dimensionality switching in a metal-organic Heisenberg antiferromagnet,* B. Wehinger, C. Fiolka, A. Lanza, R. Scatena, M. Kubus, A. Grockowiak, W.A. Coniglio, D. Graf, M. Skoulatos, J.-H. Chen, J. Gukelberger, N. Casati, O. Zaharko, P. Macchi, K.W. Krŕamer, S. Tozer, C. Mudry, B. Normand, and Ch. Rüegg, Phys. Rev. Lett. **121**, 117201 (2018).

83. *Multiferroic magnetic spirals induced by random magnetic exchanges,* Andrea Scaramucci, Hiroshi Shinaoka, Maxim V. Mostovoy, Markus Müller, Christopher Mudry, Matthias Troyer, and Nicola A. Spaldin, Phys. Rev. X **8**, 011005 (2018).

82. *Model of chiral spin liquids with Abelian and non-Abelian topological phases,* Jyong-Hao Chen, Christopher Mudry, Claudio Chamon, and A. M. Tsvelik, Phys. Rev. B **96**, 224420 (2017).

81. *Weyl-type topological phase transitions in fractional quantum Hall like systems,* Stefanos Kourtis, Titus Neupert, Christopher Mudry, Manfred Sigrist, and Wei Chen, Phys. Rev. B **96**, 205117 (2017).

80. *Coupled spin-1/2 ladders as microscopic models for non-Abelian chiral spin liquids,* Po-Hao Huang, Jyong-Hao Chen, Adrian E. Feiguin, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **95**, 144413 (2017).

79. *Wire constructions of Abelian topological phases in three or more dimensions,* Thomas Iadecola, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **93**, 195136 (2016).

78. *Non-Abelian topological spin liquids from arrays of quantum wires or spin chains,* Po-Hao Huang, Jyong-Hao Chen, Pedro R. S. Gomes, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **93**, 205123 (2016). **(Editors' Suggestion)**

77. *Breakdown of the topological classification $\mathbb{Z}$ for gapped phases of non-interacting fermions by quartic interactions,* Takahiro Morimoto, Akira Furusaki, and Christopher Mudry, Phys. Rev. B **92**, 125104 (2015).

76. *Anderson localization and the topology of classifying spaces,* Takahiro Morimoto, Akira Furusaki, and Christopher Mudry, Phys. Rev. B **91**, 235111 (2015). **(Editors' Suggestion)**

75. *Topological BF theory of the quantum hydrodynamics of incompressible polar fluids,* Apoorv Tiwari, Xiao Chen, Titus Neupert, Luiz Santos, Shinsei Ryu, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **90**, 235118 (2014).

74. *Accessing topological order in fractionalized liquids with gapped edges*, Thomas Iadecola, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **90**, 205115 (2014).

73. *Wire deconstructionism and classification of topological phases,* Titus Neupert, Claudio Chamon, Christopher Mudry, and Ronny Thomale, Phys. Rev. B **90**, 205101 (2014). **(Editors' Suggestion)**

72. *Effective field theory for the bulk-edge correspondence in a two-dimensional $\mathbb{Z}_2$ topological insulator with Rashba interactions,* Pedro R. S. Gomes, Po-Hao Huang, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **90**, 115144 (2014).

71. *Symmetry-protected entangling boundary zero modes in crystalline topological insulators,* Po-Yao Chang, Christopher Mudry, and Shinsei Ryu, J. Stat. Mech. P09014 (2014).

70. *Spin-directed network model for the surface states of weak three-dimensional $\mathbb{Z}_2$ topological insulators,* Hideaki Obuse, Shinsei Ryu, Akira Furusaki, and Christopher Mudry, Phys. Rev. B **89**, 155315 (2014). **(Editors' Suggestion)**

69. *Fractional Chern insulators with strong interactions far exceeding bandgaps,* Stefanos Kourtis, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. Lett. **112**, 126806 (2014).

68. *Reply to "Comment on 'Elementary formula for the Hall conductivity of interacting system",* Titus Neupert, Luiz Santos, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **89**, 127102, (2014).

67. *Measuring the Quantum Geometry of Bloch Bands,* Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **87**, 245103 (2013).

66. *Enhancing the stability of fractional Chern insulators against competing phases,* Adolfo G. Grushin, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **86**, 205125 (2012).

65. *Magnetic translation algebra with or without magnetic field,* Claudio Chamon, and Christopher Mudry, Phys. Rev. B **86**, 195125 (2012).

64. *Elementary formula for the Hall conductivity of interacting systems,* Titus Neupert, Luiz Santos, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **86**, 165133 (2012).

63. *Noncommutative geometry for three-dimensional topological insulators,* Titus Neupert, Luiz Santos, Shinsei Ryu, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **86**, 035125 (2012).

62. *Global phase diagram of two-dimensional Dirac fermions in random potentials,* Shinsei Ryu, Christopher Mudry, Akira Furusaki, and Andreas Ludwig, Phys. Rev. B **85**, 235115 (2012).

61. *Topological Hubbard model and its high-temperature quantum Hall effect,* Titus Neupert, Luiz Santos, Shinsei Ryu, Claudio Chamon, and Christopher Mudry, Phys. Rev. Lett. **108**, 046806 (2012).

60. *Time-reversal symmetric hierarchy of fractional incompressible liquids,* Luiz Santos, Titus Neupert, Shinsei Ryu, Claudio Chamon, and Christopher Mudry Phys. Rev. B **84**, 165138 (2011).

59. *Fractional topological liquids with time-reversal symmetry and their lattice realization,* Titus Neupert, Luiz Santos, Shinsei Ryu, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **84**, 165107 (2011).

58. *Fractional Quantum Hall States at Zero Magnetic Field,* Titus Neupert, Luiz Santos, Claudio Chamon, and Christopher Mudry, Phys. Rev. Lett. **106**, 236804 (2011). (**With accompanying Viewpoint**)

57. *Counting Majorana zero modes in superconductors*, Luiz Santos, Yusuke Nishida, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **83**, 104522 (2011).

56. *Topological qubits in graphene-like systems,* Luiz Santos, Shinsei Ryu, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **82**, 165101 (2010).

55. *High-gradient operators in perturbed Wess-Zumino-Witten field theories in two dimensions*, S. Ryu, C. Mudry, A. W. W. Ludwig, and A. Furusaki, Nucl. Phys. **B839**, 341 (2010).

54. *The $\mathbb{Z}_2$ network model for the quantum spin Hall effect: two-dimensional Dirac fermions, topological quantum numbers, and corner multifractality,* Shinsei Ryu, Christopher Mudry, Hideaki Obuse, and Akira Furusaki, New J. Phys. **12**, 065005 (2010).

53. *Superconductivity on the surface of topological insulators and in two-dimensional noncentrosymmetric materials*, Luiz Santos, Titus Neupert, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **81**, 184502 (2010).

52. *Deconfined fractional electric charges in graphene at high magnetic fields*, Chang-Yu Hou, Claudio Chamon, and Christopher Mudry, Phys. Rev. B **81**, 075427 (2010).

51. *Masses in graphene-like two-dimensional electronic systems: topological defects in order parameters and their fractional exchange statistics*, Shinsei Ryu, Christopher Mudry, Chang-Yu Hou, and Claudio Chamon,
Phys. Rev. B **80**, 205319 (2009). **(Editors' Suggestion)**

50. *Spectroscopic evidence for preformed Cooper pairs in the pseudogap phase of cuprates*, M. Shi, A. Bendounan, E. Razzoli, S. Rosenkranz, M. R. Norman, J. C. Campuzano, J. Chang, M. Mansson, Y. Sassa, T. Claesson, O. Tjernberg, L. Patthey, N. Momono, M. Oda, M. Ido, S. Guerrero, C. Mudry, and J. Mesot,
Eur. Phys. Lett. **88**, 27008 (2009).

49. *The superspin approach to a disordered quantum wire in the chiral-unitary symmetry class with an arbitrary number of channels*, Andreas

P. Schnyder, Christopher Mudry, and Ilya A. Gruzberg, Nucl. Phys. **B822**, 424 (2009).

48. *Unconventional Fermi surface spin textures in the $Bi_xPb_{1-x}/Ag(111)$ surface alloy,* Fabian Meier, Vladimir Petrov, Sebastian Guerrero, Christopher Mudry, Luc Patthey, Juerg Osterwalder, and J. Hugo Dil, Phys. Rev. B **79**, 241408(R) (2009). **(Editors' Suggestion)**

47. *Spin-glass state and long-range magnetic order in $Pb(Fe_{1/2}Nb_{1/2})O_3$ seen via neutron scattering and muon spin rotation*, G.M. Rotaru, B. Roessli, A. Amato, C. Mudry, S.G. Lushnikov, and T.A. Shaplygina, Phys. Rev. B **79**, 184430 (2009).

46. *Anisotropic quasiparticle scattering rates in slightly underdoped to optimally doped high-temperature $La_{2-x}Sr_xCuO_4$ superconductors*, J. Chang, M. Shi, S. Pailhés, M. Maansson, T. Claesson, O. Tjernberg, A. Bendounan, L. Patthey, N. Momono, M. Oda, M. Ido, C. Mudry, and J. Mesot, Phys. Rev. B **78**, 205103 (2008).

45. *Electronic structure near the 1/8-anomaly in La-based cuprates*, J. Chang, Y. Sassa, S. Guerrero, M. Mansson, M. Shi, S. Pailhes, A. Bendounan, R. Mottl, T. Claesson, O. Tjernberg, L. Patthey, M. Ido, N. Momono, M. Oda, C. Mudry, and J. Mesot, New J. Phys. **10**, 103016 (2008).

44. *Boundary criticality at the Anderson transition between a metal and a quantum spin Hall insulator in two dimensions*, Hideaki Obuse, Akira Furusaki, Shinsei Ryu, and Christopher Mudry, Phys. Rev. B **78**, 115301 (2008). **(Editors' Suggestion)**

43. *Coherent d-wave superconducting gap in underdoped $La_{1.855}Sr_{0.145}CuO_4$ as studied by angle-resolved photoemission*, M. Shi, J. Chang, S. Pailhés, M. R. Norman, J. C. Campuzano, M. Mansson, T. Claesson, O. Tjernberg, A. Bendounan, L. Patthey, N. Momono, M. Oda, M. Ido, C. Mudry, and J. Mesot, Phys. Rev. Lett. **101**, 047002 (2008).

42. *Quantum Hall Effect of Massless Dirac Fermions in a Vanishing Magnetic Field*, Kentaro Nomura, Shinsei Ryu, Mikito Koshino, Christopher Mudry, and Akira Furusaki, Phys. Rev. Lett. **100**, 246806 (2008).

41. *Electron fractionalization for two-dimensional Dirac fermions*, Claudio Chamon, Chang-Yu Hou, Roman Jackiw, Christopher Mudry, So-Young Pi, and Gordon Semenoff, Phys. Rev. B **77**, 235431 (2008).

40. *Irrational versus rational charge and statistics in two-dimensional quantum systems*, Claudio Chamon, Chang-Yu Hou, Roman Jackiw, Christopher Mudry, So-Young Pi, and Andreas P. Schnyder, Phys. Rev. Lett. **100**, 110405 (2008).

39. *$\mathbb{Z}_2$ topological term, the global anomaly, and the two-dimensional symplectic symmetry class of Anderson localization*, Shinsei Ryu, Christopher Mudry, Hideaki Obuse, and Akira Furusaki, Phys. Rev. Lett. **99**, 116601 (2007).

38. *Conductance fluctuations in disordered superconductors with broken time-reversal symmetry near two dimensions*, S. Ryu, A. Furusaki, A. W. Ludwig, and C. Mudry, Nucl. Phys. **B780**, 105 (2007).

37. *Two-dimensional spin-filtered chiral network model for the $\mathbb{Z}_2$ quantum spin-Hall effect*, Hideaki Obuse, Akira Furusaki, Shinsei Ryu, and Christopher Mudry, Phys. Rev. B **76**, 075301 (2007).

36. *When low- and high-energy electronic responses meet in cuprate superconductors*, J. Chang, S. Pailhés, M. Shi, M. Mansson, T. Claesson, O. Tjernberg, J. Voigt, V. Perez, L. Patthey, N. Momono, M. Oda, M. Ido, A. Schnyder, C. Mudry, and J. Mesot, Phys. Rev. B **75**, 224508 (2007).

35. *Landauer conductance and twisted boundary conditions for Dirac fermions in two space dimensions*, S. Ryu, C. Mudry, A. Furusaki, and A. W. Ludwig, Phys. Rev. B **75**, 205344 (2007).

34. *Screening in $(d+s)$-wave superconductors: Application to Raman scattering*, Andreas P. Schnyder, Christopher Mudry, and Dirk Manske, Phys. Rev. B **75**, 174525 (2007).

33. *Electron Fractionalization in Two-Dimensional Graphenelike Structures*, Chang-Yu Hou, Claudio Chamon, and Christopher Mudry, Phys. Rev. Lett. **98**, 186809 (2007).

32. *Magnetic-field-induced spin excitations and renormalized spin gap of the underdoped superconductor* $La_{1.895}Sr_{0.105}CuO_4$, J. Chang, A.P. Schnyder, R. Gilardi, H.M. Ronnow, S. Pailhes, N.B. Christensen, Ch. Niedermayer, D.F. McMorrow, A. Hiess, A. Stunault, M. Enderle, B. Lake, O. Sobolev, N. Momono, M. Oda, M. Ido, C. Mudry, and J. Mesot, Phys. Rev. Lett. **98**, 077004 (2007).

31. *Zero-temperature Kosterlitz-Thouless transition in a two-dimensional quantum system*, Claudio Castelnovo, Claudio Chamon, Christopher Mudry, and Pierre Pujol, Annals of Physics **322**, 903 (2007).

30. *Scaling relations in quasi-two-dimensional Heisenberg antiferromagnet*, Antoine Praz, Christopher Mudry, and Matthew Hastings, Phys. Rev. B **74**, 184407 (2006).

29. *Theory for Inelastic Neutron Scattering in Orthorhombic High-Tc Superconductors*, Andreas P. Schnyder, Dirk Manske, Christopher Mudry, and Manfred Sigrist, Phys. Rev. B **73**, 224523 (2006).

28. *High-temperature criticality in strongly constrained quantum systems*, Claudio Castelnovo, Claudio Chamon, Christopher Mudry, and Pierre Pujol, Phys. Rev. B **73**, 144411 (2006).

27. *Universal scaling relations in strongly anisotropic materials*, M. B. Hastings and C. Mudry, Phys. Rev. Lett. **96**, 027215 (2006).

26. *Quantum three-coloring dimer model and the disruptive effect of quantum glassiness on its line of critical points*, Claudio Castelnovo, Claudio Chamon, Christopher Mudry, and Pierre Pujol, Phys. Rev. B **72**, 104405 (2005).

25. *From quantum mechanics to classical statistical physics: generalized Rokhsar-Kivelson Hamiltonians and the "Stochastic Matrix Form" decomposition*, Claudio Castelnovo, Claudio Chamon, Christopher Mudry, and Pierre Pujol, Annals of Physics, **318**, 316 (2005).

24. *Influence of higher d-wave gap harmonics on the dynamical magnetic susceptibility of high-temperature superconductors*, A. P. Schnyder, A. Bill, C. Mudry, R. Gilardi, H. M. Ronnow, and J. Mesot, Phys. Rev. B **70**, 214511 (2004).

23. *Crossover of the conductance and local density of states in a single-channel disordered quantum wire*, S. Ryu, C. Mudry, and A. Furusaki, Phys. Rev. B **70**, 195329 (2004).

22. *Density of states for the π-flux state with bipartite real random hopping only: A weak disorder approach*, C. Mudry, S. Ryu, and A. Furusaki, Phys. Rev. B **67**, 064202 (2003).

21. *On the universality of delocalization in dirty superconducting wires with broken spin-rotation symmetry*, P. W. Brouwer, A. Furusaki, and C. Mudry, Phys. Rev. B **67**, 014530 (2003).

20. *Zero-modes in the random hopping model*, P. W. Brouwer, E. Racine, A. Furusaki, Y. Hatsugai, Y. Morita, and C. Mudry, Phys. Rev. B **66**, 014204 (2002).

19. *Fokker-Planck equations and density of states in disordered quantum wires,* M. Titov, P. W. Brouwer, A. Furusaki, and C. Mudry, Phys. Rev. B **63**, 235318 (2001).

18. *Density of states for dirty d-wave superconductors: A unified and dual approach for different types of disorder*, Claudio Chamon and Christopher Mudry, Phys. Rev. B **63**, 100503(R) (2001).

17. *Crossover from the chiral to the standard universality classes in the conductance of a quantum wire with random hopping only*, Christopher Mudry, P. W. Brouwer, and Akira Furusaki, Phys. Rev. B **62**, 8249 (2000).

16. *Localization and delocalization in dirty superconducting wires*, P. W. Brouwer, A. Furusaki, I. A. Gruzberg, and C. Mudry, Phys. Rev. Lett. **85**, 1064 (2000).

15. *Density of states in coupled chains with off-diagonal disorder*, P. W. Brouwer, C. Mudry, and A. Furusaki, Phys. Rev. Lett. **84**, 2913 (2000).

14. *Nonuniversality in quantum wires with off-diagonal disorder: a geometric point of view*, P. W. Brouwer, C. Mudry, and A. Furusaki, Nucl. Phys. **B565**, 653 (2000).

13. *Does quasi-long-range order in the two-dimensional XY model really survive weak random phase fluctuations?*, Christopher Mudry and Xiao-Gang Wen, Nucl. Phys. **B549**, 613 (1999).

12. *Random magnetic flux problem in a quantum wire*, Christopher Mudry, P. W. Brouwer, and Akira Furusaki, Phys. Rev. B **59**, 13221 (1999).

11. *Density of states in the non-hermitian Lloyd model*, Christopher Mudry, P. W. Brouwer, B. I. Halperin, V. Gurarie, and A. Zee, Phys. Rev. B **58**, 13539 (1998).

10. *Delocalization in coupled one-dimensional chains*, P. W. Brouwer, Christopher Mudry, B. D. Simons, and A. Altland, Phys. Rev. Lett. **81**, 862 (1998).

9. *Random Dirac Fermions and Non-Hermitian Quantum Mechanics*, Christopher Mudry, B. D. Simons, and Alexander Altland, Phys. Rev. Lett. **80**, 4257 (1998).

8. *Exact calculation of multifractal exponents of the critical wave function of Dirac fermions in a random magnetic field*, Horacio E. Castillo, Claudio de C. Chamon, Eduardo Fradkin, Paul M. Goldbart, and Christopher Mudry, Phys. Rev. B **56**, 10668 (1997).

7. *Localization in two dimensions, Gaussian field theories, and multifractality*, Claudio de C. Chamon, Christopher Mudry, and Xiao-Gang Wen, Phys. Rev. Lett. **77**, 4194 (1996).

6. *Liouville theory as a model for prelocalized states in disordered conductors*, I. Kogan, Christopher Mudry, and A. M. Tsvelik, Phys. Rev. Lett. **77**, 707 (1996).

5. *Two-dimensional conformal field theory for disordered systems at criticality*, Christopher Mudry, C. Chamon, and X.-G. Wen, Nucl. Phys. **B466**, 383 (1996).

4. *Instability of the disordered critical points of Dirac fermions*, C. Chamon, Christopher Mudry , and X.-G. Wen, Phys. Rev. B **53**, R7638 (1996).

3. *Mechanism of spin and charge separation in one dimensional quantum antiferromagnets*, Christopher Mudry and E. Fradkin, Phys. Rev. B **50**, 11409 (1994).

2. *Separation of spin and charge quantum numbers in strongly correlated systems*, Christopher Mudry and E. Fradkin, Phys. Rev. B **49**, 5200 (1994).

1. *Ground states of infinite-range spin-$\frac{1}{2}$ quantum Heisenberg antiferromagnets*, Christopher Mudry and E. Fradkin, Phys. Rev. B **40**, 11177 (1989).

Preprints

1. *Magnetic nano-fluctuations in a frustrated magnet,* Krunoslav Prsa, Mark Laver, Martin Mansson, Sebastian Guerrero, Peter M Derlet, Ivica Zivkovic, Hee Taek Yi, Lionel Porcar, Oksana Zaharko, Sandor Balog, Jorge L Gavilano, Joachim Kohlbrecher, Bertrand Roessli, Christof Niedermayer, Jun Sugiyama, Cecile Garcia, Henrik M Ronnow, Christopher Mudry, Michel Kenzelmann, Sang Wook Cheong, and Joel Mesot, arXiv:1404.7398.

Non-peer-reviewed

11. *Two-dimensional materials: Heavy going,* Christopher Mudry, Nature Physics **12 (News and Views)**, 895 (2016) doi:10.1038/nphys3798.

10. *Erratum: Wire deconstructionism of two-dimensional topological phases [Phys. Rev. B 90, 205101 (2014)],* Titus Neupert, Claudio Chamon, Christopher Mudry, and Ronny Thomale, Phys. Rev. B **93**, 039905 (2016).

9. *Fractional (Chern and topological) insulators,* Titus Neupert, Claudio Chamon, Thomas Iadecola, Luiz H. Santos, and Christopher Mudry, Nobel Symposium 156: "New forms of matter: topological insulators and superconductors," Phys. Scr. **T164**, 014005 (2015).

8. *Masses and Majorana fermions in graphene,* Claudio Chamon, Chang-Yu Hou, Christopher Mudry, Shinsei Ryu, and Luiz Santos, Nobel Symposium on Graphene and Quantum Matter; Saltsjobaden, Sweden May 27-31 2010; Phys. Scripta **T146**, 014013 (2012).

7. *Does T^* – the temperature that defines the onset of the pseudogap regime in underdoped cuprates – correspond to a phase transition or a crossover?*, Commentary by Joel Mesot and Christopher Mudry, Journal club for condensed matter physics, June 3 2008,
see http://www.condmatjournalclub.org.

6. *Disorder-induced critical phenomena–new universality classes in Anders on localization*, P. W. Brouwer, A. Furusaki, C. Mudry, and S. Ryu, BUTSURI **60**, 935 (2005); english translation can be found in cond-mat/0511622.

5. *Density of states of disordered Dirac particles: Infinitely many operators with negative scaling dimensions and freezing transitions*, Shinsei Ryu, Christopher Mudry, and Akira Furusaki, J. Phys. Soc. Jpn. **72** Suppl. A, 219 (2003).

4. *Transport Properties and Density of States of Quantum Wires with Off-diagonal Disorder*, P. W. Brouwer, C Mudry, and A. Furusaki, Physica E **9**, 333 (2001).

3. *Erratum: Random Dirac Fermions and Non-Hermitian Quantum Mechanics*, by Christopher Mudry, B. D. Simons, and Alexander Altland, Phys. Rev. Lett. **85**, 3334 (2000).

2. *Dirac fermions with random vector potentials: instability and multifractality*, Christopher Mudry in Proceedings of the XXXI Rencontres de Moriond on: "*Correlated Fermions and Transport in Mesoscopic Systems*", edited by T. Martin, G. Montambaux and J. Trân Thanh Vân, Editions Frontières 1996.

1. *Absence of slave-spinons in the spin-1/2 Heisenberg chain*, Christopher Mudry in Proceedings of the XXXI Rencontres de Moriond on: "*Correlated Fermions and Transport in Mesoscopic Systems*", edited by T. Martin, G. Montambaux and J. Trân Thanh Vân, Editions Frontières 1996.

Books

2. Chapter 7, *Fractional Abelian topological phases of matter for fermions in two-dimensional space*, by Christopher Mudry in: Les Houches 2014 Session CIII, *Topological Aspects of Condensed Matter Physics*, First Edition, edited by C. Chamon et al., Oxford University Press 2017.

1. *Lecture Notes on Field Theory in Condensed Matter Physics*, Christopher Mudry, World Scientific (Singapore 2014).

Organization of workshops/conferences

- *Trends in Theory of Correlated Materials 2023,* The Japan-Swiss bilateral conference, Kashiwa, October 16-18 2023.
- *Trends in Theory of Correlated Materials 2022,* The Japan-Swiss bilateral conference, Zurich, October 30 - November 2 2022.
- *2022 Swiss Workshop on Materials with Novel Electronic Properties Basic research and applications,* Les Diablerets, Switzerland, August 29-31 2022
- *Trends in Theory of Correlated Materials 2019,* The Japan-Swiss bilateral conference, Kyoto, October 07-09 2019.
- *Trends in Theory of Correlated Materials 2018,* The Japan-Swiss bilateral conference, Geneva, October 08-10 2018.
- *Trends in Theory of Correlated Materials 2017,* The Japan-Swiss bilateral conference, Tsukuba, September 10-13 2017.
- *Celebrating Physics with a Good Excuse,* Paul Scherrer Institute, Switzerland July 3-6 2017.
- *Trends in Theory of Correlated Materials 2016,* The Japan-Swiss bilateral conference, Paul Scherrer Institute, Switzerland May 22-25 2016.
- *Topological Band Structures and Their Instabilities,* Advanced Study Groups at the Max-Planck-Institut fuer Physik komplexer Systeme, Dresden, 2012-2013. Members: Fakher Assaad, Balasz Dora, Lars Fritz, Ken-Ichiro Imura, Igor Herbut, Christopher Mudry, and Ronny Thomale.
- *Probing Phase Transitions using Photons, Muons and Neutrons*, 10th PSI summer school on condensed matter physics, August 2011.
- *Magnetic phenomena*, 9th PSI summer school on condensed matter physics, August 2010.
- *Symposium on the Occasion of the 60th Birthday of Rudolf Morf*, June 30 2003.

- *ARPES and INS as a probe of collective modes in high-T_c superconductivity*, Paul Scherrer Institute, February 5-7 2001.

Talks at Conferences, Symposiums, Workshops, Summer Schools, etc

Invited talks

- *Lieb-Schultz-Mattis anomalies and web of dualities induced by gauging in quantum spin chains*, The Japan-Swiss bilateral conference, *"Trends in Theory of Correlated Materials 2023,"* Kashiwa, October 16-18 2023.

- *Lieb-Schultz-Mattis anomalies and web of dualities induced by gauging in quantum spin chains*, workshop on Entanglement in Strongly Correlated Systems, Centro de Ciencias de Benasque Pedro Pascual, August 2023.

- *Lieb-Schultz-Mattis type theorems for Majorana models with discrete symmetries*, workshop on Entanglement in Strongly Correlated Systems, Centro de Ciencias de Benasque Pedro Pascual, August 2023.

- *Lieb-Schultz-Mattis type theorems for Majorana models with discrete symmetries*, Program on Topological properties of gauge theories and their applications to high-energy and condensed-matter physics, Galileo Galilei Institute for Theoretical Physics, University of Florence, August-October 2021.

- *Deconfined quantum criticality revisited,* The Japan-Swiss bilateral conference, *"Trends in Theory of Correlated Materials 2019,"* Kyoto, October 07-09 2019.

- *Deconfined quantum criticality revisited,* Conference on "Spins in a quantum 1D multip-particle environment: From exotic phases and nontrivial topology to protected transport"
  Ludwig-Maximilians-Universität München (LMU)
  September 2-5 2019.

- *Deconfined quantum criticality revisited,* Euler Symposium on Theoretical and Mathematical Physics, Euler International Mathematical Institute, St. Petersburg, Russia, June 15-20 2019.

- *Hierarchical Majoranas in a Programmable Nanowire Network,* International workshop "Variety and universality of bulk-edge correspondence in topological phases: From solid state physics to transdisciplinary concepts" BEC2018X, University of Tsukuba Tokyo Campus, December 9-13 2018.

- *Hierarchical Majoranas in a Programmable Nanowire Network,* The Japan-Swiss bilateral conference, *"Trends in Theory of Correlated Materials 2018,"* Geneva, October 8-10 2018.

- *Hierarchical Majoranas in a Programmable Nanowire Network,* Recent progress in mathematics of topological insulators (PMTI), ETHZ, September 3-6 2018.

- *A constructive approach to non-Abelian long-range entanglement in 2 and 3 dimensional spaces,* Symposium on Quantum Matter, University of Zurich, June 11-13 2018.

- *A constructive approach to non-Abelian long-range entanglement in 2 and 3 dimensional spaces,* International workshop "Variety and universality of Bulk-Edge Correspondence in topological phases: From solid state physics to transdisciplinary concepts" (BEC2018), Tsukuba, Japan, January 5-8 2018.

- *Topological order in three spatial dimensions from coupled wires,* The Japan-Swiss bilateral conference "Trends in Theory of Correlated Materials 2017," Tsukuba, Japan, September 10-13 2017.

- *Topological order in three spatial dimensions from coupled wires,* Workshop on Topological Properties in Quantum Magnets, Budapest, August 30-September 1 2017.

- *Non-Abelian chiral spin liquids in two-dimensional spin models,* MaNEP Workshop on Topological Quantum Phenomena, University of Zurich, November 2016.

- *A constructive approach to topological insulators and topological order,* Conference on Interactions and Topology in Dirac Systems, ICTP, Trieste, Italy, August 3-10 2016.

- *A constructive approach to topological insulators and topological order,* 20th Symposium on Topological Quantum Information, Athens, Greece, May 25-27 2016.

- *Interactions in Topological Matter,* School on Topological Quantum Matter, Harish-Chandra Research Institute, Allahabad, February 9-21 2015.

- *Wire deconstructionism of two-dimensional topological phases,* The Japan-Swiss bilateral conference "Trends in Theory of Correlated Materials 2014,", Aoyama Gakuin University, Japan, October 6-8 2014.

- *Three lectures on fractional topological insulators,* Aspects topologiques en physique de la matière condensée, École de Physique des Houches, 04-29 août 2014.

- *Topological insulators: a review:* International Workshop "Quantum Disordered Systems: What's Next?", Toulouse (France), 24-27 June 2014.

- *Spin-directed network model for the surface states of weak three-dimensional $\mathbb{Z}_2$ topological insulators,* Recent Progress and Perspectives in Scaling, Multifractality, Interactions, and Topological Effects Near Anderson Transitions, International Focus Workshop: March 11 - 14 2014, MPIPKS Dresden, Germany.

- *Spin-directed network model for the surface states of weak three-dimensional $\mathbb{Z}_2$ topological insulators,* The Japan-Swiss bilateral conference "Trends in Theory of Correlated Materials 2013,", EPFL, Switzerland, October 2-5 2013.

- *Fractional topological insulators: a progress report,* International Focus Workshop on Flat Bands: *Design, Topology, and Correlations*, March 06 - 09 2013, Max-Planck-Institut fuer Physik komplexer Systeme, Dresden.

- *Graphene and fundamental concepts in theoretical physics,* Workshop on Advances in Quantum Technologies: From Quantum Information to Quantum Devices. August 20 - August 31 2012, International Institute of Physics in Natal (Brazil).

- *Fractional topological insulators*, Workshop on Novel Quantum States in Condensed Matter: Correlation, Frustration and Topology, November 7 - December 9 2011, Yukawa Institute for Theoretical Physics (YITP), Kyoto University, Japan.

- *Fractional topological insulators*, Workshop on Topological Insulators and Superconductors, KITP, September 19 - December 16 2011.

- *Fractional topological insulators*, Workshop on Quantum Field Theory aspects of Condensed Matter Physics, INFN - Laboratori Nazionali di Frascati, Italy, 6-9 September 2011.

- *Quantum phase transitions: an overview*, 10th PSI Summer School on Condensed Matter Research, Institut Montana Zugerberg in Zug, Switzerland, 13-22 August 2011.

- *Point defects in topological Bloch insulators or superconductors,* "Topological Properties of Electronic Materials", MaNEP topical meeting, University of Geneva, May 6 2011.

- *Topological aspects in superconducting materials,* "Advanced Working Group on Experimental Probes for Topological Materials", Royal Holloway College, University of London, February 18-19 2011.

- *Deconfined fractional electric charges in graphene at high magnetic fields*, The Japan-Swiss bilateral conference "New Trends in Theory of Correlated Materials (NTTCM) 2010," Chiba, Japan, September 8-10 2010.

- *High-gradient operators and Anderson localization*, Advanced workshop on "Anderson localization, nonlinearity and turbulence: a cross-fertilization", ICTP, Trieste, Italy, 23 August - 3 September 2010.

- *Quantum number fractionalization in condensed matter physics*, SLS symposium on graphene, September 2009.

- *Quantum transport of 2D Dirac fermions: The case for a topological metal*, Delocalization Transitions and Multifractality, a Satellite Meeting at Gregynog Hall, University of Wales, November 2008.

- *Electron fractionalization in two-dimensional graphene-like structures*, National Seminar Condensed Matter Physics, Dutch Research School of Theoretical Physics, October 2008.

- *Electron fractionalization in two-dimensional graphene-like structures*, Workshop on Exact Results in Low-Dimensional Quantum Systems: 2nd INSTANS Summer Conference, Galileo Galilei Institute for Theoretical Physics, University of Florence, September 2008.

- *Introduction to the physics of graphene*, 7th PSI Summer School on Condensed Matter Research, Lyceum Alpinum Zuoz, Switzerland, August 2008.

- *Quantum transport of 2D Dirac fermions: The case for a topological metal*, WE Heraeus Seminar: Network Models in Quantum Physics, at Jacobs University Bremen 2008.

- *Freezing Transitions in Anderson Localization*, Workshop on Stochastic Geometry and Field Theory: From Growth Phenomena to Disordered Systems, KITP, August 7 - December 15 2006.

- *The quantum three-coloring dimer model and quantum glassiness*, Workshop on Complex Behavior in Correlated Electron Systems, Lorentz Center, University of Leiden, August 2 2005.

- *Freezing transition in a problem of Anderson localization*, Workshop on Quantum Systems out of Equilibrium, ICTP, Trieste, Italy, June 2004.

- *Freezing transition in a problem of Anderson localization*, Conference on Random Matrix Theory and Related Topics, Yukawa Institute for Theoretical Physics, Kyoto University, December 2002.

- *Transport properties and density of states of dirty unconventional (superconducting or with off-diagonal disorder) quantum wires*, Institute Theoretical Physics University of California at Santa Barbara, Program on High Temperature Superconductivity September 2000.

- *Transport properties and density of states of quantum wires with off-diagonal disorder*, International Seminar on Non-perturbative Approach to Disordered Systems and Quantum Hall Effect, Max-Planck-Institut für Physik Komplexer Systeme Dresden, Germany, August 2000.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, Extended Workshop on Integrable Models in Condensed matter and Non-equilibrium Physics, centre de recherche mathématiques, Université de Montréal, May-June 2000.
- *Quantum wires with off-diagonal disorder*, European Physical Society meeting, Montreux, Switzerland, March 2000.
- *Delocalization in coupled one-dimensional chains*, Gordon conference on Correlated Electron Systems, Plymouth, NH, July 1998.
- *Some open issues with the random XY model*, Extended Research Workshop on Statistical Physics of Frustrated Systems, ICTP, Trieste, Italy, September 1997.
- *Dirac Fermions in a Random Gauge Field: Example of Wave Functions with Critical Properties*, Max-Planck-Institut Workshop on Non-Perturbative Approach to Chaos in Mesoscopic Systems and Localization, Dresden, August 1996.
- *Two-Dimensional Conformal Field Theory for Disordered Systems at Criticality*, Nordita Conference on the Physics of the 2D Electron Gas, Copenhagen, June 1995.

Contributed talks

- *Elementary derivation of the stacking rules of invertible fermionic topological phases in one dimension,* APS March Meeting, Las Vegas, March 2023.
- *Stability against contact interactions of a topological superconductor in two-dimensional space protected by time-reversal and reflection symmetries,* APS March Meeting, Chicago, March 2022.
- *Lieb-Schultz-Mattis type theorems for Majorana chains with discrete symmetries,* APS March Meeting, online 2021.

- *Exact many-body quantum scar states with topological properties in dimensions 1, 2, and 3,* APS March Meeting, Boston 2019.
- *Model of spin liquids with and without time-reversal symmetry,* APS March Meeting, Boston 2019.
- *Hierarchical Majoranas in a Programmable Nanowire Network,* APS March Meeting, Boston 2019.
- *Coupled spin-1/2 ladders as microscopic models for non-Abelian chiral spin liquids,* APS March Meeting, New-Orleans, March 2017.
- *Non-Abelian fractional topological insulators in three spatial dimensions from coupled wires,* APS March Meeting, New-Orleans, March 2017.
- *Construction of non-Abelian topological insulators using non-Abelian bosonization,* APS March Meeting, Baltimore, March 2016.
- *Topological BF theory of the quantum hydrodynamics of incompressible polar fluids,* APS March Meeting, San Antonio, March 2015.
- *Accessing topological order in fractionalized liquids with gapped edges,* APS March Meeting, San Antonio, March 2015.
- *Wire deconstructionism of two-dimensional topological phases,* APS March Meeting, San Antonio, March 2015.
- *Topological order in lattice models of strongly interacting electrons,* APS March Meeting, Denver, March 2014.
- *Magnetic translation algebra with or without magnetic field,* APS March Meeting, Baltimore, March 2013.
- *Elementary formula for the Hall conductivity of interacting systems,* APS March Meeting, Baltimore, March 2013.
- *The topological Hubbard model and its high-temperature quantum Hall effect,* APS March Meeting, Boston, March 2012.
- *Time-reversal symmetric hierarchy of fractional incompressible liquids,* APS March Meeting, Boston, March 2012.

- *Counting Majorana zero modes in superconductors*, APS March Meeting, Dallas, March 2011.
- *Masses, topological phase transitions and fractionalized particles in graphene*, APS March Meeting, Portland, March 2010.
- *Deconfined fractional electric charges in graphene at high magnetic fields*, APS March Meeting, Portland, March 2010.
- *Superconductivity on the surface of topological insulators and in two-dimensional noncentrosymmetric materials*, APS March Meeting, Portland, March 2010.
- *Topological qubits in graphene-like systems*, APS March Meeting, Portland, March 2010.
- *Quantum Hall effect of massless Dirac fermions in a vanishing magnetic field*, APS March Meeting, Pittsburg, March 2009.
- *Network Model for Z_2 Quantum Spin-Hall Effects with Disorder*, APS March Meeting, New Orleans, March 2008.
- *Quantum transport of 2D Dirac fermions: the 2D symplectic symmetry class of Anderson localization and the Z2 topological term*, APS March Meeting, New Orleans, March 2008.
- *Irrational vs. rational charge and statistics in graphene-like system*, APS March Meeting, New Orleans, March 2008.
- *Landauer conductance and twisted boundary conditions for Dirac fermions*, APS March Meeting, Denver, March 2007.
- *Electron fractionalization in two-dimensional graphene-like structures*, APS March Meeting, Denver, March 2007.
- *Theoretical Study of Orthorhombic Distortions in High-Temperature Superconductors*, APS March Meeting, Baltimore, March 2006.
- *High-Temperature Criticality in Strongly Constrained Quantum Systems*, APS March Meeting, Baltimore, March 2006.

- *Introducing interactions in quantum dimer, vertex and loop models at the RK point*, APS March Meeting, Los Angeles, March 2005.
- *Mesoscopic fluctuations in disordered superconductors with broken time-reversal symmetry*, APS March Meeting, Los Angeles, March 2005.
- *The role of Higher-Harmonics in the Superconducting Gap on the Magnetic Susceptibility of High-T_c Materials*, APS March Meeting, Montreal, March 2004.
- *Full distribution function of the local density of states in a 1D disordered quantum wire and its crossover from the chiral to standard universality class*, APS March Meeting, Montreal, March 2004.
- *Density of states for dirty d-wave superconductors: A unified and dual approach for different types of disorder*, APS March Meeting, Seattle, March 2001.
- *Random magnetic flux problem in a quantum wire: Theory*, APS March Meeting, Atlanta, March 1999.
- *Random Dirac Fermions and Non-Hermitian Quantum Mechanics*, APS March Meeting, Los Angeles, March 1998.
- *Open issues with the Kosterlitz-Thouless-Berezinskii*, APS March Meeting, Kansas City, March 1997.
- *Multifractality and the Localization Transition in 2-d: Conformal Field Theory* , APS March Meeting, St. Louis, March 1996.
- *Multifractality and the Localization Transition in 2-d: Random Cantor Set Construction*, APS March Meeting, St. Louis, March 1996.
- *Dirac Fermions in Random Fields*, APS March Meeting, San-Jose, March 1995.
- *Spinons or no Spinons in the Frustrated Spin-1/2 Chain?*, APS March Meeting, Pittsburgh, March 1994.
- *Study of an Isotropic Spin Liquid State on the Lattice*, APS March Meeting, Seattle, March 1993.

- *Spin Liquid States and Strong Gauge Fields Fluctuations*, APS March Meeting, Indianapolis, March 1992.
- *Macroscopic Chiral States*, APS March Meeting, Cincinnati, March 1991.
- *Ground States of Infinite-Range Spin-$\frac{1}{2}$ Quantum Heisenberg Antiferromagnets*, APS March Meeting, St. Louis, March 1989.

Colloquia

- *Topological order: an attempt at demystification,* Colloquium of the Chinese University of Hong Kong, September 2017.
- *Nobel Prize 2016: Topology in condensed matter physics,* Condensed Matter PSI Colloquium, February 2017.
- *Topology in condensed matter physics,* Colloque de Physique, Université de Fribourg, December 2016.
- *Anderson localization and the topology of classifying spaces,* Theoretisch-Physikalisches Kolloquium, University of Cologne, January 2015.
- *Fractional topological insulators,* Dahlem Center Colloquium, Freie Universität Berlin, June 2011.
- *Freezing transition in a problem of Anderson localization*, University of Karlsruhe, May 2004.
- *Does quasi-long-range order in the 2d XY model really survive weak random phase fluctuations?*, Tokyo Institute of Technology, December 1998
- *Does quasi-long-range order in the 2d XY model really survive weak random phase fluctuations?*, University of Tokyo, December 1998
- *Surprises in a Model of Localization: from Multifractality to Random Directed Polymers,* University of Missouri at Columbia, April 1998
- *Surprises in a Model of Localization: From Multifractality to Random Directed Polymers*, Paul Scherrer Institut, Switzerland, February 1998.

- *Surprises in a Model of Localization: From Multifractality to Random Directed Polymers*, International Center for Theoretical Physics, Trieste, Italy, April 1997.
- *Surprises in a Model of Localization: From Multifractality to Random Directed Polymers*, University of Rhode Island, February 1997.
- *Surprises in a Model of Localization: From Multifractality to Random Directed Polymers*, University of Stony Brook, February 1997.
- *Localization, Random Directed Polymers, and Liouville Field Theory*, University of Köln, August 1996.

Seminars

2023

- *Lieb-Schultz-Mattis anomalies and web of dualities induced by gauging in quantum spin chains,* RIKEN, October 2023.

2021

- *Deconfined quantum criticality revisited,* University Southern California, February 2021.

2019

- *Deconfined quantum criticality revisited,* Freie Universität Berlin, Nov 2019.
- *Deconfined quantum criticality revisited,* Theory Lunch Seminar, Institute of Physics, EPFL, March 2019.

2018

- *Room-temperature magnetic spiral order induced by disorder,* RIKEN, November 2018.

- *Hierarchical Majoranas in a Programmable Nanowire Network,* Recent progress in mathematics of topological insulators (PMTI), PSI, September 2018.
- *Room-temperature magnetic spiral order induced by disorder*, Brookhaven National Laboratory, June 2018.
- *A model of chiral spin liquids with tunable chiral edge state*, University of Maryland, June 2018.
- *A constructive approach to non-Abelian long-range entanglement in 2 and 3 dimensional spaces*, University of Illinois at Urbana-Champaign, March 2018.

2017

- *Abelian topological order in three-dimensional space*, University of Tsukuba, December 2017.
- *A model of chiral spin liquids with tunable edge states,* Brookhaven National Laboratory, June 2017.
- *A model of chiral spin liquids with tunable edge states,* RIKEN, April 2017.

2016

- *Non-Abelian chiral spin liquids in two-dimensional spin models,* Oxford University, November 2016.
- *Non-Abelian topological spin liquids from arrays of quantum wires or spin chains,* RIKEN, January 2016.

2015

- *Breakdown of the topological classification $\mathbb{Z}$ for gapped phases of non-interacting fermions by quartic interactions,* University of Illinois at Urbana-Champaign, October 2015.

- *Breakdown of the topological classification $\mathbb{Z}$ for gapped phases of noninteracting fermions by quartic interactions,* Boston University, October 2015.

2014

- *Wire deconstructionism and classification of topological phases,* RIKEN, April 2014.
- *From incompressible fluids in $(3+1)$-dimensional space and time to $(3+1)$-dimensional BF quantum field theories,* RIKEN, April 2014.
- *Fractional topological insulators: a progress report,* Blackboard Seminar of the Wolfgang Pauli Centre, University of Hamburg and DESY, February 2014.
- *Spin-Directed Network Model for the Surface States of Weak Three-Dimensional $\mathbb{Z}_2$ Topological Insulators,* Northeastern University, January 2014.
- *Fractional topological insulators: a progress report,* Florida State University, January 2014.

2013

- *Fractional topological insulators: a progress report,* ICTP, November 2013.
- *The Fubini-Study metric of band insulators and the magnetic translation algebra with or without magnetic field*, RIKEN, April 2013.
- *Fractional topological insulators: a progress report,* Dresden, March 2013.

2012

- *A route to fractional topological insulators in two and three dimensions,* Kobe University, April 2012.
- *A route to fractional topological insulators in two and three dimensions,* Yukawa Institute for Theoretical Physics, Kyoto University, April 2012.

- *A route to fractional topological insulators in two and three dimensions,* RIKEN, April 2012.

2011

- *Fractional topological insulators,* Boston College, October 2011.
- *Fractional topological insulators,* University of Illinois at Urbana-Champaign, October 2011.
- *Fractional quantum Hall states at zero magnetic field*, RIKEN, April 2011.
- *Topological aspects in superconducting materials*, Hong-Kong University of Science and Technology, April 2011.

2010

- *Topological qubits in graphene-like systems*, University of Illinois at Urbana-Champaign, October 2010.
- *Deconfined fractional electric charges in graphene at high magnetic fields*, Université de Toulouse, May 2010.
- *Topological qubits in graphene-like systems*, RIKEN, April 2010.

2009

- *Topological qubits in graphene-like systems*, Université Paris-Sud, Laboratoire de physiques des solides, December 2009.
- *Quantum number fractionalization in condensed matter physics*, EPFL, September 2009.

2008

- *Quantum transport of 2D Dirac fermions: The case for a topological metal*, University of Oxford, October 2008.
- *Electron fractionalization in two-dimensional graphene-like structures*, University of Warwick, October 2008.

- *Freezing transition in a problem of Anderson localization*, Cambridge University, October 2008.
- *Electron fractionalization in two-dimensional graphene-like structures*, Instituto de Ciencia de Materiales de Madrid (ICMM), March 2008.

2007

- *Electron fractionalization in two-dimensional graphene-like structures*, University of Basel, October 2007.
- *Electron fractionalization in two-dimensional graphene-like structures*, RIKEN, July 2007.
- *Electron fractionalization in two-dimensional graphene-like structures*, Ludwig Maximilian University (LMU) Munich, June 2007.
- *Electron fractionalization in two-dimensional graphene-like structures*, University of Illinois at Urbana-Champaign, May 2007.

2006

- *Electron fractionalization in two-dimensional graphene-like structures*, ICTP, Trieste, Italy, December 2006.
- *Universal scaling relations in strongly anisotropic materials*, University of Tokyo, August 2006.
- *Universal scaling relations in strongly anisotropic materials*, RIKEN, July 2006.
- *Universal scaling relations in strongly anisotropic materials*, ENS Paris, June 2006.
- *Anderson localization in quasi-one and two dimensions in the presence of either the chiral or particle-hole symmetry*, EPFL, June 2006.
- *Universal scaling relations in strongly anisotropic materials*, University of California at Riverside, February 2006.

- *Universal scaling relations in strongly anisotropic materials*, EPFL, February 2006.
- *Universal scaling relations in strongly anisotropic materials*, ILL Grenoble, January 2006.
- *Universal scaling relations in strongly anisotropic materials*, University of Chicago, January 2006.

2005

- *Universal scaling relations in strongly anisotropic materials*, University of Illinois at Urbana-Champaign, October 2005.
- *The quantum three-coloring dimer model and quantum glassiness*, University of Santa Barbara, October 2005.
- *Universal scaling relations in strongly anisotropic materials*, Boston university, September 2005.
- *Freezing transition in a problem of Anderson localization*, University of Strasbourg, May 2005.
- *The quantum three-coloring model: An example of a quantum Hamiltonian that is of the "Stochastic Matrix Form"*, University of Tokyo, March 2005.
- *The quantum three-coloring model: An example of a quantum Hamiltonian that is of the "Stochastic Matrix Form"*, RIKEN, March 2005.
- *The quantum three-coloring model: An example of a quantum Hamiltonian that is of the "Stochastic Matrix Form"*, University of Chicago, January 2005.

2004

- *Influence of higher d-wave gap harmonics on the dynamical magnetic susceptibility of high-temperature superconductors,* Cornell University, September 2004.

- *Influence of higher d-wave gap harmonics on the dynamical magnetic susceptibility of high-temperature superconductors,* Boston University, September 2004.
- *Freezing transition in a problem of Anderson localization*, Workshop on Quantum Systems out of Equilibrium, ICTP, Trieste, Italy, June 2004.
- *Open problems with the temperature evolution of spin excitations in quasi-one-dimensional quantum spin systems,* RIKEN, March 2004.

2003

- *Disorder and d-wave superconductivity,* Cornell University, September 2003.
- *Disorder and d-wave superconductivity,* University of Illinois at Urbana-Champaign, September 2003.
- *Freezing transition in a problem of Anderson localization*, Tokyo Institute of Technology, March 2003.
- *Freezing transition in a problem of Anderson localization*, Tokyo University, March 2003.

2002

- *Freezing transition in a problem of Anderson localization*, Boston University, October 2002.
- *Freezing transition in a problem of Anderson localization*, Harvard University, October 2002.
- *Freezing transition in a problem of Anderson localization*, MIT, October 2002.
- *Freezing transition in a problem of Anderson localization*, Cornell University, October 2002.
- *Freezing transition in a problem of Anderson localization*, University of Illinois at Urbana-Champaign, October 2002.

- *On the universality of delocalization in unconventional dirty superconducting wires with broken spin-rotation symmetry*, University of Osaka, March 2002.
- *Unusual aspects of* 2*d conformal field theories describing disordered systems: The random phase XY model*, Yukawa Institute for Theoretical Physics, Kyoto University, February 2002.
- *Unusual aspects of* 2*d conformal field theories describing disordered systems: From multifractal zero modes to Liouville field theory*, Yukawa Institute for Theoretical Physics, Kyoto University, February 2002.
- *On the universality of delocalization in unconventional dirty superconducting wires with broken spin-rotation symmetry*, University of Tokyo, February 2002.

2001

- *Disorder induced critical behavior in thick quantum wires*, ETHZ, April 2001.

2000

- *Transport and density of states in unconventional quantum wires: a unified picture*, Basel University, December 2000.
- *Transport properties and density of states of dirty unconventional (superconducting or with off-diagonal disorder) quantum wires*, Boston University, October 2000.
- *Transport properties and density of states of dirty unconventional (superconducting or with off-diagonal disorder) quantum wires*, Ohio State University, October 2000.
- *Transport properties and density of states of dirty unconventional (superconducting or with off-diagonal disorder) quantum wires*, University of Illinois at Urbana-Champaign, October 2000.
- *Transport properties and density of states of dirty unconventional (superconducting or with off-diagonal disorder) quantum wires*, University of California at Los Angeles, September 2000.

- *Transport properties and density of states of quantum wires with off-diagonal disorder*, ETHZ, Zürich, July 2000.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, University of Geneva, April 2000.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, University of Augsburg, January 2000.

1999

- *Transport properties and density of states of quantum wires with off-diagonal disorder*, Yukawa Institute for Theoretical physics, University of Kyoto, December 1999.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, University of Tokyo, December 1999.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, University of Zürich, November 1999.
- *Transport properties and density of states of quantum wires with off-diagonal disorder*, Massachusetts Institute of Technology, March 1999.

1998

- *Does quasi-long-range order in the 2d XY model really survive weak random phase fluctuations?*, Yukawa Institute of Theoretical Physics, Japan, May 1998.
- *Random Dirac Fermions and Non-Hermitian Quantum Mechanics*, Harvard University, April 1998.
- *Open issues in the two-dimensional random phase XY model*, Oxford University, February 1998.

1997

- *Surprises in a Model of Localization: From Multifractality to Random Directed Polymers*, Harvard University, September 1997.

- *The Issue of Deconfinement in the Gauge Approach to Spin and Charge Separation in Strongly Correlated Systems*, Université de Neuchâtel, April 1997.

1996

- *From Multifractality to Random Directed Polymers at a metal-insulator transition*, Rutgers University, November 1996.
- *From Multifractality to Random Directed Polymers at a metal-insulator transition*, Princeton University, November 1996.
- *From Multifractality to Random Directed Polymers at a metal-insulator transition*, Boston College, November 1996.
- *Surprises in a Model of Localization: from Multifractality to Random Directed Polymers*, Yale University, October 1996.
- *Surprises in a Model of Localization: from Multifractality to Random Directed Polymers*, Brown University, October 1996.
- *Localization, Random Directed Polymers, and Liouville Field Theory*, Université de Fribourg, September 1996.
- *Surprises in an Exactly Solvable model of Localization*, Université de Sherbrooke, May 1996.
- *Surprises in an Exactly Solvable model of Localization*, Ohio State University, April 1996.
- *Surprises in an Exactly Solvable model of Localization*, University of Indiana at Bloomington, April 1996.
- *Surprises in an Exactly Solvable model of Localization*, Northwestern University, April 1996.
- *Surprises in an Exactly Solvable model of Localization*, University of Illinois at Urbana-Champaign, April 1996.
- *Gaussian Field Theories, Random Cantor Sets, and Multifractality*, Oxford University, February 1996.

- *Gaussian Field Theories, Random Cantor Sets, and Multifractality*, Institut Laue-Langevin, Grenoble, February 1996.
- *Dirac Fermions with Random Vector Potentials and Multifractality*, ETHZ, Zürich, January 1996.

1995

- *Two-Dimensional Conformal Field Theory for Disordered Systems at Criticality*, Université de Toulouse, June 1995.
- *Two-Dimensional Conformal Field Theory for Disordered Systems at Criticality*, Université de Genève, June 1995.
- *Two-Dimensional Conformal Field Theory for Disordered Systems at Criticality*, Université de Fribourg, June 1995.
- *Negative Dimensional Operators in the Disordered Critical Points of Dirac Fermions*, Massachusetts Institute of Technology, May 1995.
- *Negative Dimensional Operators in the Disordered Critical Points of Dirac Fermions*, University of California, Irvine, April 1995.

1994

- *Spin and Charge Separation in Strongly Correlated Electron Systems*, MIT, October 1994.

1993

- *Separation of Spin and Charge Quantum Numbers in Strongly Correlated Systems*, University of Illinois at Urbana-Champaign, October 1993.
- *Separation of Spin and Charge Quantum Numbers in Strongly Correlated Systems*, Université de Genève, September 1993.

Conferences, Workshops, and Summer Schools

- *AJL@80: Challenges in Quantum Foundations, Condensed Matter, and Beyond,* University of Illinois at Urbana-Champaign, March 2018.
- *School on Topological Quantum Matter,* Harish-Chandra Research Institute, Allahabad, 9-21 February 2015.
- *Wire deconstructionism of two-dimensional topological phases,* The Japan-Swiss bilateral conference "Trends in Theory of Correlated Materials 2014," Aoyama Gakuin University, Japan October 6-8 2014.
- *Aspects topologiques en physique de la matière condensée,* École de Physique des Houches, 04-29 août 2014.
- *New Forms of Matter - Topological Insulators and Superconductors,* Nobel Symposia, June 13-15 2014.
- *Symmetry in Topological Phases*, Princeton Center for Theoretical Science, March 17-20 2014.
- *Recent Progress and Perspectives in Scaling, Multifractality, Interactions, and Topological Effects Near Anderson Transitions,* International Focus Workshop: March 11-14 2014, MPIPKS Dresden, Germany.
- *Trends in Theory of Correlated Materials,* The Japan-Swiss bilateral conference *"Trends in Theory of Correlated Materials 2013,"* EPFL, Switzerland October 2-5 2013.
- *Design, Topology, and Correlations*, International Focus Workshop on Flat Bands: March 06 - 09 2013, Max-Planck-Institut fuer Physik komplexer Systeme, Dresden.
- *Workshop on Advances in Quantum Technologies: From Quantum Information to Quantum Devices.* August 20-31 2012, International Institute of Physics in Natal (Brazil).
- *Novel Quantum States in Condensed Matter: Correlation, Frustration and Topology,* November 7-9 2011, Yukawa Institute for Theoretical Physics (YITP), Kyoto University, Japan.

- *Topological Insulators and Superconductors*, KITP, September 19 - December 16 2011.
- *Quantum Field Theory aspects of Condensed Matter Physics,* 6-9 September 2011 INFN - Laboratori Nazionali di Frascati, Italy,
- *Probing Phase Transitions using Photons, Muons and Neutrons*, 10th PSI Summer School on Condensed Matter Research, Zug, Switzerland, August 2011.
- *Magnetic phenomena*, 9th PSI summer school on condensed matter physics, August 2010.
- *SLS symposium on graphene, September 2009*, September 01 2009.
- *2009 Swiss Workshop on materials with novel electronic properties*, les Diablerets, August 26-28 2009.
- *Delocalization Transitions and Multifractality*, A Satellite Meeting at Gregynog Hall, University of Wales, November 2-6 2008.
- *Mathematics and Physics of Anderson localization: 50 Years After Delocalization Transitions and Multifractality*, Isaac Newton Institute for Mathematical Sciences, Cambridge University, July 14 - December 19 2008.
- *Exact Results in Low-Dimensional Quantum Systems: 2nd INSTANS Summer Conference*, Galileo Galilei Institute for Theoretical Physics, University of Florence, September 08-12 2008.
- *Probing the Nanometer Scale with Neutrons, Photons and Muons*, 7th PSI Summer School on Condensed Matter Research, Lyceum Alpinum Zuoz, Switzerland, August 2008.
- *WE Heraeus Seminar: Network Models in Quantum Physics*, at Jacobs University Bremen, July 21-25 2008.
- *Amsterdam Workshop on Low-Dimensional Quantum Condensed Matter*, July 2-7 2007.

- *Stochastic Geometry and Field Theory: From Growth Phenomena to Disordered Systems*, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, Fall 2006.
- *Strongly correlated low dimensional systems*, Ascona, July 2006.
- *Program on Topological Phases and Quantum Computation*, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, Spring 2006.
- *Spectroscopy/Microscopy*, 4rd PSI Summer School on Condensed Matter Research, 14-21 August 2005, Lyceum Alpinum, Zuoz, Switzerland.
- *Workshop on Complex Behavior in Correlated Electron Systems*, Lorentz Center, University of Leiden, 01-16 August 2005.
- *Amsterdam Workshop on Low-Dimensional Quantum Condensed Matter*, 25-30 July 2005.
- *Physics of Strongly Correlated Electron Systems 2004,* Yukawa Institute for Theoretical Physics, Kyoto, Japan, November 2004.
- *Phase transitions and critical phenomena*, 3rd PSI Summer School on Condensed Matter Research, 7-14 August 2004 Lyceum Alpinum, Zuoz, Switzerland.
- *Workshop on Quantum Systems out of Equilibrium*, ICTP, Trieste, Italy, June 2004.
- *Interactions and Disorder in Metals and Insulators in Two Dimensions*, Aspen workshop, August 2003.
- *Flux, Charge, Topology, and Statistics*, Amsterdam Summer Workshop, June 30-July 5 2003.
- *Conference on Random Matrix Theory and Related Topics*, Yukawa Institute for Theoretical Physics, Kyoto University, 17-19 December 2002.
- *Magnetism*, 1th PSI Summer School on Condensed Matter Research, 10-17 August 2002 Lyceum Alpinum, Zuoz, Switzerland.

- *Program on High Temperature Superconductivity*, Institute for Theoretical Physics, University of California, Santa Barbara, Fall 2000.
- *International seminar on non-perturbative approach to disordered systens and quantum Hall effect*, Max-Planck-Institut für Komplexer Systeme, Dresden, August 2000.
- *Neutron scattering in novel materials*, 8th PSI Summer School on Neutron Scattering, Lyceum Alpinum, Zuoz, Switzerland, August 5-11 2000.
- *Integrable Models in Condensed matter and Non-equilibrium Physics*, extended Workshop, centre de recherche mathématiques, Université de Montréal, May-June 2000.
- *New Theoretical Approaches to Strongly Correlated Systems*, a NATO Advanced Study Institute/EC Summer School, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, April 10-20 2000.
- *8^th International Conference on Muon Spin Rotation, Relaxation and Resonance,* 1999 Les Diablerets, Switzerland, September 1999.
- *Quantum Criticality*, 1999 Aspen Winter Conference on Condensed Matter, January 1999.
- *Critical Problems in Disordered Metals*, University of California, Los Angeles, March 1998 Conference.
- *Defects in Soft Condensed Matter*, 1998 Aspen Winter Conference on Condensed Matter, January 1998.
- *Quantum Field Theory in Low Dimensions: from condensed matter to particle physics*, Workshop, Institute for Theoretical Physics, University of California, Santa Barbara, June-July 1997.
- *Quantum Field Theory in Low Dimensions*, Conference, Institute for Theoretical Physics, University of California, Santa Barbara, June 1997.
- *Strongly interacting electrons in reduced dimensions*, 1997 Aspen Winter Conference on Condensed Matter, January 1997.

- *Non-Perturbative Approach to Chaos in Mesoscopic Systems and Localization*, Max-Planck-Institut Workshop, Dresden, August 1996.
- *Quantum Magnetism*, Aspen Workshop, July 1996.
- *Propriétés Electroniques et Structurales des Conducteurs à Basse Dimension*, Ecole d'été de l'Université de Sherbrooke, May 1996.
- *Correlated Fermions and Transport in Mesoscopic Systems*, XXXI Rencontres de Moriond, Les Arcs, January 1996.
- *The Physics of the 2D Electron Gas*, Nordita Conference, Copenhagen, June 1995.
- *Workshop on Non-Fermi Liquid in 1-D*, University of California, Los Angeles, March 1995.
- *Advanced Quantum Field Theory and Critical Phenomena*, European Research Conference, Ascona, September 1993,
- *Theory of High T_c Superconductivity*, NATO ASI Cargèse Summer School, June 1990.