

# APPENDIX

	<b>Page</b>
<b>1. Publications</b> . . . . .	3
1.1 Monographs, Books . . . . .	3
1.2 Editor of books . . . . .	3
1.3 Chapters in books . . . . .	3
1.4 Publications in refereed journals . . . . .	4
1.5 Submitted papers . . . . .	11
1.6 Conference proceedings and reports . . . . .	12
<b>2. List of talks</b> . . . . .	15
2.1 Oral conference contributions and talks at colloquia . . . . .	15
2.2 Oral contributions at DPG spring meetings . . . . .	23
2.3 Public talks and lectures for educational work and schools . . . . .	28
<b>3. Poster presentations</b> . . . . .	31
3.1 Poster at international conferences and workshops . . . . .	31
3.2 Poster at DPG spring meetings . . . . .	36
<b>4. Documents</b> . . . . .	45



# 1. PUBLICATIONS

## 1.1 Monographs, Books

1. Diss. Universität Rostock (1992): *Properties of Partially Ionized Hydrogen Plasma in High Electric Fields*, K. Morawetz, GSI Report, GSI-93-14, 150 pages
2. Habilitation University of Rostock (1998): *Kinetic theory for strongly interacting Fermi systems*, K. Morawetz, 187 pages
3. *Kinetic theory for strongly interacting Fermi systems*, Annales de physique, 26,1 (2001) ISBN 2-86883-541-4, P. Lipavský, K. Morawetz, V. Spička, 256 pages
4. *Bernoulli potentials in superconductors - how electric fields help to understand superconductivity*, Lecture notes in Physics 733, Springer Verlag Berlin (2007), ISBN 978-3-540-73455-0, P. Lipavský, J. Kolaček, K. Morawetz, E. H. Brandt, T. Yang, 280 pages
5. *Interacting Systems far from Equilibrium – Quantum Kinetic Theory*, Oxford University Press (2017), ISBN: 9780198797241, K. Morawetz, 525 pages

## 1.2 Editor of books

6. Proceedings of the I.-V. Workshop on nonequilibrium physics at short time scale, Rostock University Press (1998), ISBN 3-86009-147-6, ed. by K. Morawetz, 150 pages
7. *Nonequilibrium at short time scales*, Springer Verlag, Berlin (2004), ISBN 3-540-20031-2, ed. by K. Morawetz, 476 pages
8. *Structure, disorder and correlations*, phys. stat. solidi (b) 241 no.9 (2004) 2007-2210 ed. by K. Morawetz, 203 pages
9. *Aspekte der Zeit* (German), LIT Verlag, Münster (2004), ISBN 3-8258-7971-2, ed. by J. Klose, K. Morawetz, 240 pages

## 1.3 Chapters in books

10. *Isospin Physics in heavy-ion collisions at intermediate energies*, Nova Science, New York (2001), ISBN 1-56072-888-4, ed. by B. A. Lie, U. Schroeder, nucl-th/0001032: Chapter: *Collective modes in asymmetric matter*, K. Morawetz, U. Fuhrmann, R. Walke, p. 183-223
11. *Nonequilibrium at short time scales*, Springer Verlag, Berlin (2004), ISBN 3-540-20031-2, ed. by K. Morawetz: Chapter: *Non-local Kinetic Theory*, K. Morawetz, P. Lipavský, p. 125-151
12. *Aspekte der Zeit* (german), LIT Verlag, Münster (2004), ISBN 3-8258-7971-2, ed. by J. Klose, K. Morawetz : Chapter: *Zeit im Weltbild der Physik*, K. Morawetz, p. 67-88

13. *Condensed Matter Theories*, Vol. 22, ed. by: H. Reinholz, G. Röpke, M. de Llano, World Scientific, Singapore (2007): Chapter *The concept of correlated density and its application*, K. Morawetz, P. Lipavský, J. Koláček, E. H. Brandt, M. Schreiber, p. 314-327
14. *Nanoscience and Engineering in Superconductivity* (Springer Series, NanoScience and Technology), Springer (2010), ISBN 978-3-642-15136-1, arXiv:0912.1265: *Surface superconductivity controlled by electric field*, J. Koláček, P. Lipavský, K. Morawetz
15. Festschrift of Norman March's 90th birthday: *Binary quantum correlations in nonequilibrium*, K. Morawetz, in *Many-body Approaches at Different Scales*, Eds. G. G. N. Angilella and C. Amovilli, Springer, p. 297-320, (2018), Berlin, ISBN 978-3-319-72373-0

## 1.4 Publications in refereed journals

### 1992

16. *Contributions to Plasma Physics* **31**,5 535-544: *Partially Ionized Hydrogen Plasmas in Strong Electric Fields*, K. Morawetz, D. Kremp
17. *Contributions to Plasma Physics* **31**,5 519-534: *Kinetic Theory of Hot Carrier Screening*, K. Morawetz, D. Kremp, K. Kilimann

### 1993

18. *Phys. Rev.* **E 47**,1 635-640: *Impact ionization in nonideal plasmas in strong electric field*, D. Kremp, K. Morawetz, M. Schlanges, V. Rietz
19. *Phys. Rev.* **E 48**,4 2980-2988: *Nonlinear Conductivity of Partially Ionized Plasmas in High Electric Fields*, K. Morawetz, M. Schlanges, D. Kremp
20. *Phys. Lett.* **A 173** 317-325: *Field dependence of collision integral and the Debye - Onsager - Relaxation - Effect*, K. Morawetz, D. Kremp
21. *Phys. Lett.* **B 313**,1-5: *Dynamical structure factor of correlated hot nuclear matter*, G. Röpke, K. Morawetz, Th. Alm
22. *Contributions to Plasma Phys.* **33**,5-6 540-543: *Plasma instabilities due to high electric fields*

### 1994

23. *Phys. of Fluids* **B 1**,2 225-235: *Collective excitations and optical bistability in partially ionized Hydrogen-plasmas due to high electric fields*, K. Morawetz, D. Kremp
24. *Phys. Rev.* **E 50**,1 474-479: *Plasma Instabilities in High Electric Fields*, K. Morawetz, A.P. Jauho
25. *Phys. Rev.* **E 50**,5 4625-4635: *Theory of Fluctuations in High Electric Fields*, K. Morawetz
26. *Phys. Lett.* **A 190** 96-100: *Suppression of the effect of collisions due to memory effects*, K. Morawetz, R. Walke and G. Röpke

### 1995

27. *Phys. Rev.* **E 51** 4246-4266: *Memory Effects and Virial Corrections in Nonequilibrium Dense Systems*, K. Morawetz, G. Röpke

28. Phys. Lett. **A 199** 241-245: *The Landau equation including Memory and Energy Conservation*, K. Morawetz
29. Z. Phys. **A 352** 265-274: *In-medium Kinetic Theory and Nucleon -Meson Systems*, K. Morawetz, D. Kremp

**1996**

30. Z. Phys. **A 355** 287-299: *In-medium two-nucleon properties in high electric fields*, K. Morawetz, G. Röpke
31. Phys. Rev. **C 54**,2 833-843: *The Contribution of Density Fluctuations to the Damping of Giant Resonances*, K. Morawetz, M. Di Toro, L. Münchow
32. Phys. Rev. **E 54**,3 4134-4147: *Stopping power in nonideal dense plasmas*, K. Morawetz, G. Röpke
33. Laser and Particle Beams **14**,4 611-624: *Stopping power in nonideal plasmas*, K. Morawetz

**1997**

34. Phys. Rev. **C 55** 1015-1017 rap. comm.: *Exact Solution of selfconsistent Vlasov equation*, K. Morawetz
35. Phys. Rev. **A 55** 1945-1951: *Medium modification of two-particle scattering in nonideal Bose systems*, H. Stein, K. Morawetz, G. Röpke
36. Phys. Rev. **B 55** 5084-5095: *Quasiparticle transport equation with collisional delay: I. Phenomenological approach*, V. Spička, P. Lipavský, K. Morawetz
37. Phys. Rev. **B 55** 5095-5111: *Quasiparticle transport equation with collisional delay: II. Quantum statistical approach*, V. Spička, P. Lipavský, K. Morawetz
38. Contrib. Plasma Phys. **37**,2+3 195-211, errata **37**,4: *Debye-Onsager-Relaxation-Effect beyond linear Response and Antiscreening in Plasma Systems*, K. Morawetz
39. Laser and Particle Beams **15**, 507-521: *Stopping power in strongly coupled plasmas*, K. Morawetz

**1998**

40. Phys. Lett. **A 240** 160-166: *Nonlocal corrections to the Boltzmann equation for dense Fermi systems*, V. Spička, P. Lipavský, K. Morawetz
41. Phys. Rev. **C 57** 2813-2815 rap. comm.: *New collective mode due to collisional coupling*, K. Morawetz, R. Walke, U. Fuhrmann
42. Phys. Lett. **A 246** 311-317: *Formation of binary correlations in strongly coupled plasmas*, K. Morawetz, V. Spička, P. Lipavský
43. Phys. Rev. **C 58** 1473-1487: *Damping of Giant Dipole Resonances*, U. Fuhrmann, K. Morawetz, R. Walke
44. Nuclear Inst. and Meth. **A 415** 591-593 *Formation of correlations in strongly coupled plasma*, K. Morawetz, V. Spička, P. Lipavský
45. Nuclear Inst. and Meth. **A 415** 665-667 *Nonlinear Debye-Onsager-Relaxation-Effect*, K. Morawetz
46. Nuclear Inst. and Meth. **A 415** 662-664 *Transport theory with nonlocal corrections*, K. Morawetz, V. Spička, P. Lipavský

**1999**

47. Phys. Rev. Lett. **82** 3767-3770: *Virial corrections to simulations of heavy ion reactions*, K. Morawetz, V. Spička, P. Lipavský, G. Kortemeyer, Ch. Kuhrts, R. Nebauer
48. Nucl. Phys. **A 649** 348c-354c: *Damping of giant resonances in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke
49. Phys. Rev. **C 59**,6 3052-3059: *Duration and non-locality of a nucleon-nucleon collision*, K. Morawetz, V. Spička, P. Lipavský, H.N. Kwong
50. Phys. Rev. **C 60** 17301-17303: *Giant octupole resonance simulations*, R. Walke, K. Morawetz
51. Phys. Rev. **C 60** 54601-54610: *Chaotic scattering on surfaces and collisional damping of collective modes*, K. Morawetz, M. Vogt, U. Fuhrmann, P. Lipavský, V. Spička
52. Phys. Rev. **E 59** 1015-1025: *Dielectric properties of interacting storage ring plasmas*, errate Phys. Rev. **E 69**, 039902(E) A. Selchow, K. Morawetz
53. Phys. Rev. **E 59** 1291-1294 rap. comm.: *Noninstantaneous collisions and two concepts of quasiparticles*, P. Lipavský, V. Spička, K. Morawetz
54. Eur. Phys. J. **A 4** 291-305: *Formation of correlations and energy conservation at short time scales*, K. Morawetz, H. S. Köhler
55. Contrib. Plasma Phys. **39** 41-44: *Quasiparticle Boltzmann equation for nonlocal binary collisions*, K. Morawetz, P. Lipavský, V. Spička
56. Progress in Particle and Nuclear Physics, Vol. **42** 147-156: *Nonlocal kinetic equation and simulations of heavy ion reactions*, K. Morawetz, P. Lipavský, V. Spička

**2000**

57. Phys. Rev. **E 61** 2272-2280: *General response function for interacting quantum liquids*, K. Morawetz, U. Fuhrmann
58. Phys. Rev. **E 61** 2555-2558: *Quantum response of finite Fermi systems and the relation of Lyapunov exponent to transport coefficients*, K. Morawetz
59. Phys. Rev. **E 62** 4382-4386: *Momentum conservation and local field corrections for the response of interacting Fermi gases* K. Morawetz, Uwe Fuhrmann
60. Phys. Rev. **C 62** 044606-1-11: *Dynamical constraints on phase transitions*, K. Morawetz
61. Phys. Rev. **E 62** 6135-6149, errata: Phys. Rev. **E 69**, 029902(E): *Nonlinear relaxation field in charged systems under high electric fields*, K. Morawetz
62. Phys. Rev. **C 62** 064602-1-10: *Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V.D. Toneev
63. Nuclear Inst. and Meth. **A 441** 40-43 *The influence of electron-electron collisions on the stopping power within dielectric theory*, A. Selchow, G. Röpke, K. Morawetz

**2001**

64. Phys. Rev. **C 63** 014609-1-7: *Transport with three-particle interactions*, K. Morawetz
65. Phys. Rev. **E 63** 020102R-1-4: *Short time dynamics with initial correlations*, K. Morawetz, M. Bonitz, V. G. Morozov, G. Röpke, D. Kremp

66. Phys. Rev. **C 63** 034619-1-13: *Mid-rapidity charge distribution in peripheral heavy ion collisions*, K. Morawetz, P. Lipavský, J. Normand, D. Cussol, J. Colin, B. Tamain
67. Phys. Rev. **C 63** 061602-1-5 rap. comm.: *Squeezing mode in nuclear collisions*, K. Morawetz, P. Lipavský
68. Phys. Rev. **C 64** 024613-1-13: *Correlations in many-body systems from two-time Greens functions*, S. Köhler, K. Morawetz
69. Phys. Rev. **E 64** 046107-1-7 rap. comm.: *Space-time versus particle-hole symmetry in quantum Enskog equations*, V. Spička, K. Morawetz, P. Lipavský
70. Annals of Physics **294** 135-164: *Retarded versus time-nonlocal quantum kinetic equations*, K. Morawetz, P. Lipavský, V. Spička

### 2002

71. Phys. Rev. **B 65** 012507-1-3: *Bernoulli potential at a superconductor surface*, P. Lipavský, J. Kolacek, J.J. Mares, K. Morawetz
72. Physica **A 305** 234-237: *Critical Tsallis exponent in heavy ion reaction*, K. Morawetz
73. Phys. Rev. **B 65** 144511-1-18: *Electrostatic potential in a superconductor* P. Lipavský, J. Kolacek, K. Morawetz, E.H. Brandt
74. Phys. Rev. **B 66** 075125-1-17, errata **B 88** 039905(E): *Dynamical local field, compressibility and frequency sum rules for quasiparticles*, K. Morawetz
75. Phys. Rev. **E 66** 022103-1-4: *Relation between classical and quantum particle systems*, K. Morawetz
76. Phys. Rev. **B 66** 134525-1-11: *Shifts of the nuclear resonance in the vortex lattice in  $YBa_2Cu_3O_7$*  P. Lipavský, J. Kolacek, K. Morawetz, E. H. Brandt
77. Phys. Rev. **B 66** 172508-1-4: *Electric field dependence of pairing temperature and tunneling* K. Morawetz
78. Phys. Rev. **B 66** 195333-1-5: *Formation of three-particle clusters in hetero-junctions and MOSFET structures* E. P. Nakhmedov, K. Morawetz

### 2003

79. Phys. Rev. **B 67** 115125-1-13: *Conductivity in quasi two-dimensional systems*, K. Morawetz
80. CHAOS **13** 572-577: *Bifurcations in the kinetic equation for interacting Fermi systems*, K. Morawetz
81. Physica **A 330** 475-501, errata: Physica **A 338**, 672: *Consequences of coarse grained Vlasov equations*, K. Morawetz, R. Walke
82. Phys. Rev. **B 67** 205106-1-7: *Exactly solvable model of three interacting particles in an external magnetic field*, E. P. Nakhmedov, K. Morawetz, M. Ameduri, A. Yurtsever, C. Radehaus

### 2004

83. Phys. Rev. **B 69** 024524-1-7: *Bernoulli potential in type-I and weak type-II superconductors: 1. Surface charge*, P. Lipavský, K. Morawetz, J. Koláček, J.J. Mareš, E.H. Brandt, M. Schreiber

84. Europhys. Lett. **67** 77–83: *Effective mass in quasi two-dimensional systems*, K. Morawetz
85. Phys. Rev. **B 70** 104518-1-7: *Bernoulli potential in type-I and weak type-II superconductors: 2. Surface dipole*, P. Lipavský, K. Morawetz, J. Koláček, J.J. Mareš, E.H. Brandt, M. Schreiber

#### 2005

86. Phys. Rev. **B 71** 024526-1-7: *Bernoulli potential in type-I and weak type-II superconductors: 3. Electrostatic potential above the vortex lattice*, P. Lipavský, K. Morawetz, J. Koláček, J.J. Mareš, E. H. Brandt, M. Schreiber
87. Phys. Rev. **B 72** 014301-1-15: *Correlated two-particle scattering on finite cavities*, K. Morawetz, M. Schreiber, B. Schmidt, A. Ficker, P. Lipavský
88. Phys. Rev. **B 72** 174504-1-5: *Enhancement of pairing due to the presence of resonant cavities*, K. Morawetz, M. Schreiber, B. Schmidt, P. Lipavský
89. Phys. Rev. **B 72** 233203-1-4: *Femtosecond formation of collective modes due to mean-field fluctuations*, K. Morawetz, P. Lipavský, M. Schreiber

#### 2006

90. Nanotechnology **17** 1568-1573: *Adsorption of PTCDA on a partially KBr covered Ag(111) substrate*, Loppacher, U. Zerweck, L. M. Eng, S. Gemming, G. Seifert, C. Olbrich, K. Morawetz, M. Schreiber
91. Phys. Rev. **B 73**, 052505-1-5: *Ginzburg-Landau theory of superconducting surfaces under the influence of electric fields*, P. Lipavský, K. Morawetz, J. Koláček, T. J. Yang

#### 2007

92. Phys. Rev. **B 76**, 052502-1-4: *Vortex induced deformation of the superconductor crystal lattice*, P. Lipavský, K. Morawetz, J. Koláček, E. H. Brandt
93. Phys. Rev. **B 76**, 075116-1-8: *Phase diagram for interacting Bose systems*, K. Morawetz, M. Maennel, M. Schreiber
94. New J. Phys. **9**, 313:: *Fluctuations due to the nonlocal character of collisions*, K. Morawetz

#### 2008

95. Phys. Lett. **A 372** 1707-1711 : *The chemical potential for the inhomogeneous electron liquid in terms of its kinetic and potential parts with special consideration of the surface potential step and BCS-BEC crossover*, K. Morawetz, N. H. March and R. H. Squire
96. Phys. Rev. **B 77**, 014506-1-6: *Contribution of the surface dipole to deformation of superconductors*, P. Lipavský, K. Morawetz, J. Koláček, E. H. Brandt, M. Schreiber
97. Eur. Phys. J. **B 62**, 311-317: *Reduction of surface coverage or magnetization due to geometrical steps*, K. Morawetz, C. Olbrich, S. Gemming
98. Phys. Rev. **B 77**, 184509-1-7: *Surface deformation caused by the Abrikosov vortex lattice*, P. Lipavský, K. Morawetz, J. Koláček, E. H. Brandt
99. Phys. Rev. **B 78** 054508-1-5: *Phase diagram and binding energy of interacting Bose gases*, M. Maennel, K. Morawetz, M. Schreiber, P. Lipavsky
100. Phys. Rev. **B 78** 054525-1-13: *Surface energy and magneto-capacitance of superconductors under electric field bias*, K. Morawetz, P. Lipavský, J. Koláček, E. H. Brandt

101. New J. Phys. **10** 103014-1-8: *Current without bias and diode effect in shuttling transport of nanoshafets*, K. Morawetz, S. Gemming, R. Luschtinetz, L. M. Eng, G. Seifert, A. Kenfack
102. Phys. Rev. **B 78** 174516-1-7: *Non-linear theory of deformable superconductors: Ginzburg-Landau description*, P. Lipavský, K. Morawetz, J. Koláček, E. H. Brandt

**2009**

103. Phys. Rev. **B 79**, 085405-1-12: *Transport and noise in organic field effect devices*, K. Morawetz, S. Gemming, R. Luschtinetz, T. Kunze, P. Lipavský, L. M. Eng, G. Seifert, V. Pankoke, P. Milde
104. New J. Phys. **11**, 023032-1-8: *Discontinuity of capacitance at the onset of surface superconductivity*, K. Morawetz, P. Lipavský, J.J. Mareš
105. Phys. Rev. **B 79**, 174510-1-6: *Boundary condition for the Ginzburg-Landau theory of the superconducting layer*, J. Koláček, P. Lipavský, K. Morawetz, E. H. Brandt
106. Eur. Phys. J. Special Topics **177**, 83-101: *The role of homophase and heterophase interfaces on transport properties in structured materials*, S. Gemming, T. Kunze, K. Morawetz, V. Pankoke, R. Luschtinetz, G. Seiffert

**2010**

107. Phys. Lett. **A 374**, 644-646: *Impossibility to describe repulsion with contact interaction*, K. Morawetz, M. Männel
108. Phys. Rev. **B 81**, 115401-1-7: *Modelling the transport through organic layers on a ferroelectric substrate*, T. Kunze, S. Gemming, V. Pankoke, K. Morawetz, R. Luschtinetz, G. Seiffert
109. New J. Phys. **12**, 033013-1-9: *Multiple condensed phases in attractively interacting Bose systems*, M. Männel, K. Morawetz, P. Lipavský
110. Phys. Rev. **E 81**, 036106-1-10: *Modeling the morphogenesis of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Gemming
111. Phys. Rev. **B 82** 092501-1-4: *Equivalence of channel-corrected T-matrix and anomalous propagator approach*, K. Morawetz

**2011**

112. J. Stat. Phys. **143**, 482-500: *Asymmetric Bethe-Salpeter equation for pairing and condensation*, K. Morawetz
113. Phys. Rev. **B 84**, 094529-1-13: *Self-consistent T-matrix theory of superconductivity*, B. Šopík, P. Lipavský, M. Männel, K. Morawetz, P. Matlock

**2012**

114. AIP Advances **2**, 022146-1-6: *The effect of electromagnetic fields on a charged catenary*, K. Morawetz
115. Phys. Rev. **E 86**, 026302-1-9, errata Phys. Rev. **E 86**, 069904-1: *Theory of water and charged liquid bridges*, K. Morawetz
116. Phys. Rev. **B 86**, 085452-1-17: *Instability types at ion-assisted alloy deposition: From two-dimensional to three-dimensional nanopattern growth*, G. Abrasonis, K. Morawetz

**2013**

117. Phys. Rev. **A 87**, 053617-1-7: *Coexistence of phase transitions and hysteresis near BEC*, M. Männel, K. Morawetz, P. Lipavský
118. Phys. Rev. **E 88**, 022148-1-22: *Quasiparticle parametrization of meanfields, Galilei invariance and universal conserving response functions*, K. Morawetz
119. Europhysics Letters **104** 27005-1-6: *Terahertz out-of-plane resonances due to spin-orbit coupling*, K. Morawetz

**2014**

120. Eur. Phys. J. **B 87**, 8-1-10: *Stability of condensate in superconductors*, P. Lipavský, K. Morawetz, B. Šopík, M. Männel
121. Phys. Rev. **E 90**, 022711-1-7: *Dynamical mechanism of antifreeze proteins to prevent ice growth*, B. Kutschan, K. Morawetz, S. Thoms
122. Phys. Rev. **B 90**, 075303-1-9: *Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz

**2015**

123. Phys. Rev. **B 92**, 245425-1-20, errata Phys. Rev. B93 (2016) 239904(E): *Quantum kinetic theory of spin-polarized systems in electric and magnetic fields with spin-orbit coupling: I. Kinetic equation and anomalous Hall and spin-Hall effects*, K. Morawetz
124. Phys. Rev. **B 92**, 245426-1-23: *Quantum kinetic theory of spin-polarized systems in electric and magnetic fields with spin-orbit coupling: II. RPA response functions and collective modes*, K. Morawetz

**2016**

125. Phys. Rev. **B 94**, 165415-1-16: *Dynamical charge and pseudospin currents in graphene and possible Cooper pair formation*, K. Morawetz

**2017**

126. Eur. Phys. J. **B 90**, 53,1-9: *Quantum currents and pair correlation of electrons in a chain of localized dots*, K. Morawetz
127. Eur. Phys. J. **E 40**, 25, 1-7: *Formation of brine channels in sea ice*, K. Morawetz, S. Thoms, B. Kutschan
128. Water 2017, 9(5), 353-360: *Reversed currents in charged liquid bridges*, K. Morawetz
129. Z. f. Naturforschung A, 72, 617-625: *Induced voltage in an open wire*, K. Morawetz, M. Gilbert, A. Trupp
130. Phys. Rev. **E 96**, 032106, 1-17: *Nonequilibrium thermodynamics with binary quantum correlations*, K. Morawetz

**2018**

131. Eur. Phys. J. **B 91**, 29, 1-7: *Width dependence of the structure factor and correlation energy of 1D electron wire at higher densities*, V. Ashokan, R. Bala, K. Morawetz, and K. N. Pathak
132. Phys. Rev. **B 97**, 155147-1-6: *Conditions where random phase approximation becomes exact in the high-density limit*, K. Morawetz, V. Ashokan, R. Bala, K. N. Pathak

133. Phys. Rev. **B 97**, 195142-1-6: *Correlational latent heat by nonlocal quantum kinetic theory*, K. Morawetz

**2019**

134. Phys. Lett. **A 383**, 1362–1363: *Chiral anomaly in Weyl systems: no violation of classical conservation laws*, K. Morawetz

135. Eur. Phys. J. **B 92**, 176-1-15: *Weyl systems: anomal transport normally explained*, K. Morawetz

136. Phys. Rev. **B 99**, 205124-1-12: *Bose condensation of squeezed light*, K. Morawetz

**2020**

137. Phys. Rev. **B 101**, 075130-1-9: *Exact ground-state properties of the one-dimensional electron gas at high density*, Vinod Ashokan, Renu Bala, Klaus Morawetz, and K. N. Pathak

**2021**

138. Phys. Rev. **B 104**, 035149-1-14: *Ground-state properties of electron-electron biwire systems*, R. O. Sharma, N. D. Drummond, V. Ashokan, K. N. Pathak, K. Morawetz

139. Class. Quantum Grav. **38**, 205003, errata **40** (2022) 029501: *Consistent solution of Einstein-Cartan equations with torsion outside matter*, K. Morawetz

140. Phys. Status Solidi **B 2021**, 2100316: *Exploring anomalies by many-body correlations*, K. Morawetz

**2022**

141. Phys. Rev. **B 105**, 035415-1-18: *Interplay of viscosity and surface tension for ripple formation by laser melting*, K. Morawetz, S. Trinschek, E. L. Gurevich

142. Phys. Rev. **B 105**, 115140-1-10: *Electron correlation and confinement effects in quasi-one-dimensional quantum wires at high density*, A. Girdhar, V. Ashokan, N. D. Drummond, K. Morawetz, K. N. Pathak

**2023**

143. Eur. Phys. J. **B 96**:95-1-17 *Extended quasiparticle Padé approximation for non-Fermi liquids*, K. Morawetz

## 1.5 Submitted papers

144. arXiv 2303.10356: *Time behaviour of Hubble parameter by torsion*, K. Morawetz

145. Nature Physics: *Huddle behaviour of emperor penguins*, K. Morawetz, F. Morawetz, D. Zitterbart

146. arXiv: 1806.11324: *Reply to the comment of P. Lipavsky*, K. Morawetz

## 1.6 Conference proceedings and reports

### 1992

147. GSI-Jahresbericht *High energy density in matter produced by heavy ion beams* 1992: *Non-linear Transport in Plasmas due to High Electric Fields*, K. Morawetz, 68-69

### 1993

148. Proceedings of the International Workshop XXIII on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg/Austria, 18.1.-23.1.1993, eds.: H. Feldmeier, p. 292-301: *Fluctuations and dynamical structure factor in hot nuclear matter*, K. Morawetz, G. Röpke
149. Proceedings of the XXI. International Conference on Phenomena in Ionized Gases (ICPIG) in Bochum 19.-24.9.1993, eds.: G. Ecker: p. 277-278: *Partially ionized Plasmas in high electric fields*, K. Morawetz, M. Schlages, D. Kremp,
150. *ibid.* p. 227-228: *Plasmons and Instabilities in degenerate dynamically screened plasmas*, M. Bonitz, D.C. Scott, R. Binder, S.W. Koch, D. Kremp, K. Morawetz

### 1994

151. Europhysics conference, vol **18E**: XII. European Sectional Conference on the Atomic and Molecular Physics of Ionized Gases (ESCAMPIG), 23-26.8.1994: p. 260-261: *A New Type Plasma Instabilities in High Electric Fields*, K. Morawetz, A. P. Jauho
152. *ibid.* p. 454-455: *Partially ionized Hydrogen Plasma in high electric fields- composition, transport and dielectric properties*, K. Morawetz

### 1995

153. Proceedings of the International Workshop XXIII on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg/Austria, 16.1.-21.1.1995 p. 360 - 366: *Memory effects and cluster production in nonequilibrium*, K. Morawetz, G. Röpke
154. GSI-Jahresbericht 1994, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 62-62a: *Memory Effects and Virial Corrections in Nonequilibrium Dense Matter*

### 1996

155. Proceedings of CRIS '96 (1st Catania Relativistic Ion Studies), Acicastello, Italy, May 27-31, 1996, Edited by S.Costa, S.Albergo, A.Insolia, C.Tuvé, World Scientific, Singapore, 1996, p. 319-326: *Virial corrections to the Landau theory of Quasiparticle Transport*, K. Morawetz, V. Spička, P. Lipavský
156. GSI-Jahresbericht 1995, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 69: *Stopping power in nonideal plasmas*
157. *ibid.* p.70: *The Influence of Memory and Correlation on the Stopping Power*
158. *ibid.* p. 74: *Virial corrections to the Landau theory of Quasiparticle Transport*

### 1997

159. *Strongly Coupled Coulomb Systems*, Proceedings of the International Conference on Strongly Coupled Coulomb Systems, SCCS97, Boston, Ed. Kalman *et. al.*, Plenum Press New York, 1998: *Formation of binary correlations in plasma*, K. Morawetz, V. Spička, P. Lipavský

160. GSI-Jahresbericht 1996, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 99: *Debye-Onsager Relaxation effect beyond linear response and antiscreening in plasma*
161. *ibid.* p. 100: *Formation of correlations in plasma at short time scales*
162. *ibid.* p. 101: *The consistent kinetic equation and the equation of state of nuclear matter*

### 1998

163. Proceedings of CRIS '98 (2nd Catania Relativistic Ion Studies), Acicastello, Italy, June 8.-12., 1998, Edited by S.Costa, S.Albergo, A.Insolia, C.Tuvé, World Scientific, Singapore, 1998, p. 268-278 : *Formation of correlations at Short Time Scales and Consequences on Interferometry Methods*, K. Morawetz, H.S. Koehler
164. GSI-Jahresbericht 1997, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 101: *Dielectric properties of storage ring plasmas*, A. Selchow, K. Morawetz
165. *ibid.* p. 102: *Formation of correlations in strongly coupled plasmas*, K. Morawetz, V. Spička, P. Lipavský

### 1999

166. Proceedings of the international Workshop XXVII on Gross Properties of Nuclei and Nuclear Excitations, Hirschegg (Austria), January 17 - 23: *Simulation of heavy ion reactions with nonlocal kinetic equations*, K. Morawetz, V. Spička, P. Lipavský, Ch. Kuhrts
167. Proceeding of Riken Symposium and workshop on selected topics in nuclear collective excitation (NUCOLEX99), Japan, 20.3.-24.3.: p. 90-92: *ISGDR - bulk or surface or mode ?*, K. Morawetz, U. Fuhrmann
168. *ibid.* p. 93-95: *Damping of IVGDR - Fermi liquid or Fermi gas ?*, K. Morawetz, U. Fuhrmann, M. Vogt
169. GSI-Jahresbericht 1998, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 72: *Short time dynamics with initial correlations*, K. Morawetz
170. Proceedings of XXIV International conference on Phenomena in Ionized Gases ICPIG, Warsaw, Poland 11.6.-16.6., J. Tech. Phys. **41**,1 (2000) p. 361-375: *Nonlocal transport and correlations in strongly interacting Fermi systems*, K. Morawetz, P. Lipavský, V. Spička
171. Proceedings of the International Workshop: "Kadanoff-Baym Equations - Progress and Perspectives for Many-Body Physics" Rostock, September 20-24 1999, World Scientific, Singapore: p. 45-55: *Nonlocal kinetic theory*, K. Morawetz, P. Lipavsky, and V. Spicka
172. *ibid.* p. 63-81: *Approximative constructions of the double-time correlation function from the single-time distribution function*, P. Lipavsky, V. Spicka, and K. Morawetz
173. *ibid.* p. 100-110: *Space-time vs. particle-hole symmetries of scattering integrals*, V. Spicka, P. Lipavsky, and K. Morawetz
174. *ibid.* p. 353-363: *Relativistic Transport Equations with Generalized Mass Shell Constraints*, L. Mornas, and K. Morawetz

### 2000

175. Journal de physique IV, vol 10: Proceedings of the International Conference on Strongly Coupled Coulomb Systems, St. Malo, France 4.9.-10.9.1999, Ed. C. Deutsch, B. Jancovici, M.-M. Gombert: -Pr5-175-178: *Nonlinear current in high electric fields*, K. Morawetz

176. *ibid.* pr5-179-182: *Nonlocal kinetic theory, I. Formation of correlations*, K. Morawetz, P. Lipavský, V. Spička
177. *ibid.* pr5-183-186: *Nonlocal kinetic theory, II. Transport and virial corrections*, K. Morawetz, P. Lipavský, V. Spička
178. GSI-Jahresbericht 1999, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 92: *Momentum conservation and local field corrections for the response of interacting Fermi gases*, K. Morawetz, U. Fuhrmann
179. *ibid.* p. 93: *Nonlinear current in high electric fields beyond linear response*, K. Morawetz

#### 2001

180. Proceedings of the XXXIX. International Winter Meeting on Nuclear Physics, Bormio (Italy), January 22-27, nucl-th/0103025, *Ricerca Scientifica ed Educatione Permanente Supplemento N. 117*, ed. I. Iori and A. Moroni, p. 103-118: *Non-local kinetic simulation of heavy ion collisions*, K. Morawetz
181. Proceedings of the International School and Workshop on Non Extensive Thermodynamics and physical applications, Cagliari (Italy), May 23-27, nucl-th/0103025: *Critical Tsallis exponent in heavy ion collisions*

#### 2007

182. *International Journal of Modern Physics B*, 21 (2007) 2348-2361, Proceedings of the International Workshop on Condensed Matter Theories (CMT30), Dresden, Germany: *The concept of correlated density and its application*, 14 pages, K. Morawetz, P. Lipavský, J. Koláček, E. H. Brandt, M. Schreiber
183. *Series on Advances in Quantum Many-Body Theories*, ed. R. F. Bishop, C. E. Campbell, J. W. Clark and S. Fantoni, (World Scientific): *The correlated density and the Bernoulli potential in superconductors*, 4 pages, K. Morawetz, P. Lipavský, J. Koláček

## 2. LIST OF TALKS

### 2.1 Oral conference contributions and talks at colloquia

\* invited talks, talks within seminars of working group not counted (2-3/year)

**1987**

1. 18.12.: Final talk of study stay in Jerewan : *Equivalence of statistical ensembles (russ)*

**1988**

2. Januar: Seminar of theoretical physics department: *Probleme der Äquivalenz statistischer Ensembles für das Kac-Potential*
3. Oktober: Workshop *Vielteilchentheorie* in Ahrenshop: *Herleitung kinetischer Gleichungen in starken elektrischen Feldern*

**1989**

4. April: Hiddensee-Seminar Plasmaphysik: *Feldabhängige kinetische Gleichungen und deren approximative Lösung*
5. Mai: Güstrow-Seminar: *Herleitung kinetischer Gleichungen*

**1990**

6. Oktober: Seminar of theoretical physics department: Vortrag: *Kinetische Theorie von Wasserstoffplasmen in starken elektrischen Feldern*

**1991**

7. April: Colloquium of physics department Rostock: *Abschirmung in partiell ionisierten H-Plasmen in starken elektrischen Feldern*
8. 4.6.-6.6.: SIS-meeting of nuclear physics in Güstrow: *Kinetische Theorie von Nukleon-Meson-Systemen*
9. 24.9.-25.9.:\* Symposium of theoretical nuclear - and many-body physics in Heidelberg: *Kinetische Theorie von relativistischen Vielteilchensystemen*

**1992**

10. 23.4.:\* Kernfysisch Versneller Instituut in Groningen: *Kinetic theory of relativistic nucleon-meson-systems*
11. 29.4.: Colloquium of physics department Rostock: *Stoßionisation von nichtidealen Plasmen in starken elektrischen Feldern*
12. 22.5.-24.5.: SIS meeting of nuclear physics in Rostock: *Nichtideale Plasmen in starken elektrischen Feldern*

13. 3.12.-5.12.: Workshop Heisenberg-Landau program in Heidelberg: *Density fluctuations and phase transitions*

**1993**

14. 30.1. - 4.2.: *High Energy Density in Matter*, International Workshop, Hirschegg, Kleinwalsertal, Österreich: *Collective Excitation in partially ionized H-Plasma due to high electric fields*
15. 4.6.-6.6.: SIS-meeting at Burg Rieneck (Rauischholzhausen VI): *Anregungen und Instabilitäten in korrelierter Kernmaterie in der Nähe des Flüssig - Gas Phasenüberganges*
16. 26.9.-1.10.: VII. Workshop for non-ideal plasmas (IWPNI), Markgrafenheide: *Plasma instabilities in high electric fields*
17. 8.11.:\* Colloquium at J. W. Goethe Universität Frankfurt: *Plasma instabilities due to high electric fields*
18. 9.11.:\* Colloquium at TU München - Garching: *In - medium relativistic kinetic theory and nucleon-meson systems*

**1994**

19. 10.1.-12.1.: First workshop on nonequilibrium physics at short time scales: *Retardation effects in giant resonances*
20. 28.2.-2.3.: Heidelberg-Rostock Workshop: *Memory effects in Giant Resonances*

**1995**

21. 10.1.-12.1.: 144. WE - Heraeus Seminar : Second workshop on nonequilibrium physics at short time scales: *Memory Effects and virial corrections in dense systems*
22. 10.3.-13.3.: Workshop *Hadronic Matter* in Oberflockenbach: *Time-dependent particle production*
23. May: Tennessee Technology University: *Memory effects and virial corrections in nuclear matter*
24. June: University of Arizona: *Memory effects and bound states in nuclear matter*
25. July: NSCL - Michigan State University: *Memory effects and deuteron formation*
26. 16.10.-20.10.:\* 7. workshop on Heavy Ion driven Fusion in Madrid: *Memory effects and stopping power in nonideal plasmas*

**1996**

27. 28.1. - 2.2.:\* *High Energy Density in Matter*, International Workshop, Hirschegg, Kleinwalsertal, Österreich: *Stopping power in nonideal plasmas*
28. 5.2.: colloquium at Universität Siegen : *Quantum transport equation and the application to nuclear matter*
29. 28.2.-1.3.: Third workshop on nonequilibrium physics at short time scales, Rostock: *The contribution of density fluctuations to the damping of giant resonances*
30. 1.4.-5.4.:\* International Workshop on Collective effects in Ultra-Cold Atomic Gases, Les Houches: *Virial corrections in the Landau theory of quasiparticle transport*

31. 27.5.-31.5.:\* CRIS '96 conference, 1 st Catania Relativistic Ion Studies, Acicastello, Italy: *Virial corrections to the Landau Theory of quasiparticle damping*
32. 19.9.-21.9.: Workshop: Strong interactions at finite temperature, Rostock, Germany: *In-medium transport theory for spin polarized systems*
33. 8.12.-20.12.: Workshop: Giant resonances in nuclei, Trento, Italy: *Mutual dependence of fluctuations and collisions and its influences on the damping of giant resonances*

#### 1997

34. 3.2. - 7.2.:\* *High Energy Density in Matter*, International Workshop, Hirschegg, Kleinwalsertal, Austria: *Nonlinear Debye-Onsager relaxation effect*
35. 28.5.-31.5.:\* Space-time workshop at NSCL (Michigan, U.S.A.): *Transport theory with non-local corrections*, K. Morawetz, P. Lipavsky, V. Spicka
36. 10.6.:\* Colloquium at SUNY (Stony Brook, U.S.A.): *Influence of correlations and density fluctuations on the damping of giant resonances*
37. 8.-10.6.: 2 Talks in theory group at SUNY (Stony Brook, U.S.A.): *Virial corrections to the Landau theory of quasiparticle transport*
38. 22.9.-25.9.:\* 8th International Workshop on Atomic Physics for Ion-Driven Fusion, Heidelberg: *Formation of correlations in strongly coupled plasma*, K. Morawetz, V. Spička, P. Lipavský
39. 16.-18.10.:\* II Meeting of the ISO-DYN\* collaboration: *New collective mode due to collisional coupling in asymmetric nuclear matter*
40. 30.10.:\* Colloquium at University of Bremen: *Virial corrections to the kinetic theory of dense Fermi systems*

#### 1998

41. 1.2. - 7.2.: *High Energy Density in Matter*, International Workshop, Hirschegg, Kleinwalsertal, Austria: *Screening and Relaxation effect in High Fields*
42. 11.5.-16.5.: Topical conference on giant resonances in Varenna, Italy: *New collective mode due to collisional coupling*, K. Morawetz, U. Fuhrmann, R. Walke
43. 8.6.-12.6.:\* CRIS '98 conference, 2nd Catania Relativistic Ion Studies, Acicastello, Italy *Formation of correlations and consequences on HBT methods*
44. 14.6.-19.6.:\* Gordon research conference, New London, U.S.A.: *Transport theory with non-local corrections and consequences for HI reactions and the EOS*
45. 14.6.-19.6.:\* Talk at NSRL, University of Rochester, U.S.A.: *Formation of correlations at short time scales*
46. 6.9.-11.9.:\* International workshop on the physics of nonideal plasmas, PNP9, Rostock, 1998: *Nonlocal kinetic equation for strongly interacting Fermi systems*, K. Morawetz, P. Lipavský, V. Spička
47. 17.9.-27.9.:\* International School of Nuclear Physics, 20th course, Heavy Ion Collisions from Nuclear to Quark Matter, Erice 1998: *Nonlocal corrections to BUU simulations and a consistent kinetic equation*, K. Morawetz

48. 9.11.:\* Colloquium at University of Osnabrück: *Nichtlokale kinetische Theorie*

**1999**

49. 26.1.:\* Colloquium at University of Tübingen: *Size and memory of nucleons in heavy ion reactions*

50. 20.3.-24.3.:\* Riken Symposium and workshop on selected topics in nuclear collective excitation (NUCOLEX99), Japan:  
-*Collective modes in asymmetric nuclear matter*

51. -*Damping of IVGDR in a combined surface and collisional model*, U. Fuhrmann, K. Morawetz, M. Vogt

52. 3.6.:\* Institut de Physique Nucleaire, Orsay, France: *Nonlocal kinetic theory*

53. 8.6.:\* LPC-ISMRA, Caen, France: *Nonlocal transport and simulation of heavy ion collisions*

54. 11.6.-16.6.:\* XXIV International conference on Phenomena in Ionized Gases ICPIG, Warsaw, Poland: *Nonlocal transport and correlations in strongly interacting Fermi systems*

55. 21.7.:\* Colloquium TU München: *Nonlocal kinetic theory for dense Fermi systems*

56. 23.9.:\* International Workshop: "Kadanoff-Baym Equations - Progress and Perspectives for Many-Body Physics" Rostock, 20-24.9. 1999: *Nonlocal kinetic theory*, K. Morawetz, P. Lipavsky, and V. Spicka

57. 12.11.: GANIL Seminar: *Nonlocal Kinetic Theory and Simulations of Nuclear Collisions*

**2000**

58. 11.2.: INDRA Seminar: *Dynamical remarks on phase transitions*

59. 10.3.:\* V. INDRA workshop: *Two fragmentation procedures in heavy ion collisions around Fermi energy*

60. 31.5.: Workshop on nonequilibrium Physics at short time scales, Dresden: *Transport in high electric fields*

61. 9.6.: Workshop on nonequilibrium Physics at short time scales, Dresden: *Formation of correlations in plasma and nuclear matter*

**2001**

62. 26.1.:\* XXXIX. International Winter Meeting on Nuclear Physics, Bormio (Italy), January 22-27: *Mid-rapidity distribution in heavy ion collisions*, K. Morawetz

63. 26.5.:\* International School and Workshop on Non Extensive Thermodynamics and physical applications, Cagliari (Italy), May 23-27: *Anomalous radial expansion in central heavy ion collisions*

64. 8.11.:\* Strong nonequilibrium matter, Workshop on quantum transport in relativistic heavy ion physics, Nov 8-10, Giessen (Germany): *Nonlocal kinetic theory*

**2002**

65. 17.04.:\* University Chemnitz: *130 years Boltzmann equation- from classical to nonlocal quantum transport*

66. 16.05.:\* MPI Physik chemischer Stoffe, Theory colloquium: *Electric fields in superconductors*

67. 23.05.\* TU Dresden, Theory colloquium: *130 years Boltzmann equation- from classical to nonlocal quantum transport*
68. 27.05.: Kernforschungszentrum Rossendorf, Dresden, colloquium: *Collective modes in asymmetric nuclei*
69. 15.08.\* Workshop on "Microscopic Chaos and Transport", Dresden, 5.-24.8.02: *130 years Boltzmann equation- from classical to nonlocal quantum transport*
70. 19.08.\* International Workshop: "Kadanoff-Baym Equations - Progress and Perspectives for Many-Body Physics II" Dresden, 19.-23.8. 2002: *130 years Boltzmann equation- from classical to nonlocal quantum transport*, K. Morawetz, P. Lipavsky, and V. Spicka
71. 27.08.: Leibniz Institute for Solid State and Materials Research Dresden, Theory seminar: *Electric fields in superconductors*

### 2003

72. 28.02.: Workshop "Korrelationstage 2003" Dresden, 24.02.-28.02.2003: *Nonlocal kinetic theory - a method to simulate strong correlations*
73. 09.05.: Workshop "Offshell Effects in Quantum Transport " Dresden, 4.05.-18.05.2003: *What is hidden in the memory ? To quantum kinetic theory*
74. 16.09.\* Condensed Matter Theory XXVII, 15.09.-20.09.2003 Toulouse: *Nonlocal kinetic theory - a method to simulate strong correlations*, K. Morawetz, P. Lipavsky
75. 21.09.\* International School of Nuclear Physics, 16.-24.09.2003 Erice: *Simulation of heavy ion reactions by nonlocal kinetic theory*

### 2004

76. 19.01.\*: World Consensus Initiative Workshop "Dynamics and Thermodynamics with nucleonic degrees of freedom" Catania, 19.01.-24.01.2004: *Testing of virial corrections by nonlocal kinetic simulations*
77. 20.01.\*: World Consensus Initiative Workshop "Dynamics and Thermodynamics with nucleonic degrees of freedom" Catania, 19.01.-24.01.2004: *Dynamical signals and constraints on phase transitions*
78. 18.10.\*: University Frankfurt, Theory colloquium: *Nonlocal kinetic theory - a method to simulate strong correlations*

### 2006

79. 01.02.: Low-energy seminar, Departement of Physics, University of Arizona, Tucson, USA: *What is memory in quantum transport ?*
80. 05.02.-10.02.\* Gordon research conference, Buellton, CA New London, U.S.A., Ultrafast Phenomena in Cooperative Systems: *Short-time formation of collective modes and correlations*
81. 05.06.-10.06.: International workshop on condensed matter theories (CMT30), Dresden, Germany: *Birth of a quasiparticle - What is hidden behind memory effects ?*
82. 18.12.: Seminar Forschungszentrum Dresden-Rossendorf *Kinetic theory for systems with strong correlations*

**2007**

83. 22.5.: Seminar at Leibniz Institute for Solid State and Materials Research Dresden: *Bernoulli potentials in superconductors*
84. 7.6.: Solid state physics Colloquium at Max Planck Institute for Chemical Physics of Solids: *Bernoulli potentials in superconductors*
85. 4.7.: Seminar at University Leipzig: *Bernoulli potentials in superconductors*
86. 9.7.-13.7.: International workshop on Many-body theory of inhomogeneous superfluids, Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale Superiore, Pisa: *The Correlated Density and its Application to Superconductors*
87. 16.7.-20.7.: 14th International Conference on Recent Progress in Many Body Theories (RPMBT14), Barcelona: *The Correlated Density and its Application to Superconductors*
88. 26.9.: Seminar at IAPP Dresden: *How electric fields help to understand superconductivity*

**2008**

89. 29.4.-1.5.:\* 1st Bilateral Estonian-German Workshop on Strong Nonlinear Vibronic and Electronic Interactions in Solids, Tartu: *Surface deformation and magnetocapacitance of superconductors*
90. 14.8.: Interviewtalk for Professorship at University College Dublin: *Nonlocal kinetic theory*
91. 29.9.: International Center for Condensed Matter Physics, Brasília: *Quantum Kinetic Theory beyond Quasiparticle Picture - Bernoulli potential in Superconductors*
92. 26.11.: Interviewtalk for Professorship at University of Loughborough: *Quantum Kinetic Theory beyond Quasiparticle Picture - Bernoulli Potential in Superconductors*

**2009**

93. 05.02.: Interviewtalk for Professorship at University of Düsseldorf: *Quantum Kinetic Theory beyond Quasiparticle Picture*
94. Workshop on Routes to Superconductivity at Ambient Conditions, 13.4.-24.4.2009, ICCMP, Brasília:  
*Correlated density and superconductivity*
95. *Electric fields in superconductors and jump of capacitance*
96. 03.10.: Novel approaches to pairing and condensation, MIPPKS, 2.10.-4.10.2009: *Equivalence of channel-corrected T-matrix and anomalous propagator approach*
97. 17.12.: Inaugural Lecture Münster University of Applied Sciences: *Das Rätsel Zeit aus physikalischer Sicht*

**2010**

98. 5.3. Workshop on Physics of Computer technologies, Natal, 1.3.-6.3.2010: *Femtosecond Transport in OFETs*
99. 28.5.-5.6.10 International Symposium on Sea Ice in the physical and biological system, Tromsø: *Formation of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Thoms

100. 28.10.-30.10.10 IGS Nordic Branch meeting in Copenhagen: *Brine channel formation in sea ice - Turing structures or phase field pattern?*, B. Kutschan, K. Morawetz, S. Thoms

**2011**

101. 6.9.2011 International Institute of Physics (Natal): *Asymmetric Bethe-Salpeter equation for pairing and condensation: The many phases of interacting Bose- and Fermi gases*, K. Morawetz

**2012**

102. 22.4.-27.4. European Geosciences Union General Assembly , Vienna: *Thermodynamic treatment of morphogenesis of brine channels in sea ice*, S. Thoms, B. Kutschan, K. Morawetz, S. Gemming

103. 13.09. International Institute of Physics (Natal): *Nonlocal quantum kinetic theory - a method to simulate strong correlations*, K. Morawetz

104. 29.10.-1.11. Multiscale Complex Fluid Flows and Interfacial Phenomena, MIPPKS Dresden: *Classical theory of water and charged liquid bridges*, K. Morawetz

**2013**

105. 15.04.-19.04.: Workshop on Spin-Orbit Interaction for Light and Matter Waves, MIPPKS Dresden, Germany - *Quantum transport and response to electric fields in non-Abelian systems with spin-orbit coupling and magnetic fields*, K. Morawetz

106. 05.09. International Institute of Physics (Natal): *Universal conserving response function and dynamics of correlated classical and quantum systems*, K. Morawetz

**2014**

107. 18.09. International Institute of Physics (Natal): *Transport in non-Abelian systems with spin-orbit coupling and magnetic fields*, K. Morawetz

108. 05.10.-10.10. CECAM conference, High Performance Models for Charge Transport in Large Scale Materials Systems, Bremen, Germany: *Nonlocal kinetic theory - a method to simulate correlated systems*

**2015**

109. 03.03.-06.03. ASY-EOS 2015 International Workshop on Nuclear Symmetry Energy and Reaction Mechanisms, Piazza Armerina, Sicily, Italy: *Nonlocal quantum kinetic theory and dynamical constraints on phase transitions*

110. 23.03.-25.03. Conference of the Middle European Cooperation in Statistical Physics (MECO40), Esztergom, Hungary: *Nonlocal quantum kinetic theory and the formation of correlations*

111. 29.06.-02.07. 5th International Symposium on Nuclear Symmetry Energy (NuSYM15), Krakow, Poland: *Damping of giant resonances in symmetric and asymmetric nuclear matter*

112. 6.09.-11.09. 26th International Congress on Polar Research, Munich, Germany: *Brine channel distribution in sea ice*

113. 28.9.-2.10. Int. conference Korrelationstage, Dresden, Germany: *Transport in electric and magnetic fields with spin-orbit coupling*

114. 20.11. Charles University Prague, Czech Republic : *Kinetic theory electrons in electric and magnetic fields with spin-orbit coupling*

**2016**

115. 7.06.-9.06. International conference on nonlinear mathematics and physics, Sevilla, Spain:  
- *Dynamical mechanism of antifreeze proteins to prevent ice growth*, K. Morawetz, B. Kutschan, S. Thoms
116. -*Formation of brine channels in sea-ice as habitat for micro-algae*, K. Morawetz, B. Kutschan, S. Thoms

**2017**

117. 20.6.-23.6. 14th Granada Seminar Quantum Systems In and Out of Equilibrium: Fundamentals, dynamics and applications, Universidad de Granada, Spain: *Nonlocal quantum kinetic theory to simulate strong correlations*, K. Morawetz
118. 10.9.-30.9.: NPSTS17 Finite systems in Nonequilibrium: From quantum quench to the formation of strong correlations, Natal, Brazil:  
-14.9. *Transport in SU(2) structures*
119. -15.9. *Correlations in one-dimensional systems*
120. -19.9. *Nonlocal kinetic theory for binary quantum correlations*
121. -27.9. *Hysteresis behavior near BEC phase transition*

**2018**

122. 13.08.-16.08. SPINOS VII. International Meeting on Spins in Organic Semiconductors, Halle (Saale), Germany: *Anomaly transport in graphene and Weyl systems normally explained*
123. 03.09.-07.09. Flatlands Beyond Graphene 2018, Leipzig: *Anomaly transport in graphene and Weyl systems normally explained*
124. 17.09.-21.09. Ninth International Workshop DICE2018, Castiglione (Italy), Spacetime - Matter - Quantum Mechanics: *Nonlocal quantum kinetic theory and dynamical constraints on phase transitions in the early universe*
125. 26.09.-29.09. International Conference COSMOLOGY ON SMALL SCALES 2018: Dark Matter Problem and Selected Controversies in Cosmology, Prague, Czech Republic: *Bose condensation of weakly interacting massLESS particles*

**2019**

126. 04.07.- 06.07. Workshop, Correlations and transport in one-dimensional structures, Dresden: *Anomaly transport*

**2021**

127. 07.04. Colloquium at IIP, Natal, Brazil: *Anomal transport in spin-orbit and Weyl systems- normally explained*
128. 27.09.-2.10. SCES 2020 - International Conference on Strongly Correlated Electron Systems, (online), Brazil: *Anomal transport in spin-orbit and Weyl systems- normally explained*

**2022**

129. 21.9.-24.9.2022, International Conference COSMOLOGY ON SMALL SCALES, Prague, Czech Republic: *Exact solution of Einstein-Cartan equations with torsion*

## 2.2 Oral contributions at DPG spring meetings

### 1992

130. 24.2.-28.2.: DPG spring meeting of nuclear physics section in Salzburg: *Relativistic kinetic theory and nucleon-meson-systems*

### 1993

131. 23. - 26.3.: DPG - spring meeting of nuclear physics section in Mainz: *Density fluctuations in dense hot nonequilibrium matter*

### 1994

132. 7.3.-11.3.: DPG spring meeting of plasma physics section in Erlangen: *Suppression of the effect of collisions due to memory and non-markovian behaviour*

### 1995

133. 13.3.-17.3.: DPG spring meeting of nuclear physics section in Köln: *Memory-effects and bound states in nuclear matter*

134. 20.2.-23.2.: DPG spring meeting of plasma physics section Innsbruck: *Memory effects and virial corrections in nonideal plasmas*

### 1996

135. 18.3.-21.3.: DPG spring meeting of plasma physics section Rostock:  
-*Memory effects and virial corrections in nonideal plasmas*

136. -*Nonideal plasmas under the influence of strong fields*

137. -*Stopping power in nonideal degenerated plasmas*

138. 25.3.-29.3.: DPG spring meeting of nuclear physics section in Stuttgart:  
-*Generalized quantum transport with memory effects and short time behaviour in heavy ion reactions*

139. -*Two particle correlations in high Coulomb fields*

140. -*Critical density fluctuations and the damping of giant resonances*

### 1997

141. 3.3.-6.3.: DPG spring meeting of plasma physics section Mainz:  
-*Virial corrections to the Landau theory of quasiparticle transport*

142. -*Der Aufbau von Korrelationen in dichten Plasmen*

143. -*Stopping Power in starken Feldern*

144. -*Zeitabhängige Korrelationen in dichten Plasmen*

145. -*Untersuchung zum Schottky-Rauschen in Speicherringen*, A. Selchow, K. Morawetz, G. Röpke

146. 24.2.-28.2.: DPG spring meeting of nuclear physics section in Göttingen:  
-*Virial corrections to the Landau theory of quasiparticle transport*

147. -*Dissipation and entropy production in coarse grained Vlasov equations*, K. Morawetz, P.G. Reinhard, R. Walke
148. -*Formation of correlations and energy-conservation at short time scales*, K. Morawetz, H.S. Koehler
149. -*Vlasov simulations for highly excited nuclei*, R. Walke, K. Morawetz, G. Röpke
150. -*Collective excitations in hot nuclear matter*, U. Fuhrmann, K. Morawetz, G. Röpke

### 1998

151. 9.3.-13.3.: DPG spring meeting of plasma physics section Bayreuth:  
-*Correlation dynamics in plasmas at short time scales*, M. Bonitz, K. Morawetz
152. -*Nonlocal corrections to the Boltzmann equation for dense plasmas*, K. Morawetz, V. Spička, P. Lipavský
153. 9.3.-13.3.: DPG spring meeting of short time physics section Bayreuth:  
-*Formation of correlations in plasmas at short time scale*, K. Morawetz, V. Spička, P. Lipavský
154. 16.3.-20.3.: DPG spring meeting of nuclear physics section in Bochum:  
-*Nonlocal corrections to the Boltzmann equation for dense Fermi systems*, K. Morawetz, V. Spička, P. Lipavský
155. -*Giant octupole resonance simulations*, R. Walke, K. Morawetz, P. Schuck, U. Fuhrmann
156. 16.3.-20.3.: DPG spring meeting of atomic physics section in Konstanz:  
-*Dielectric function for storage-ring plasmas*, A. Selchow, K. Morawetz, G. Röpke

### 1999

157. 15.3.-19.3.: DPG spring meeting of atomic physics section in Heidelberg:  
-*Berechnung der Kühlkraft des Elektronenkühlers über dielektrische Funktionen*, A. Selchow, K. Morawetz, G. Röpke
158. 15.3.-19.3.: DPG spring meeting of short time physics section in Heidelberg:  
-*Aufbau von Korrelationen in Plasmen auf kurzen Zeitskalen*, K. Morawetz
159. 15.3.-19.3.: DPG spring meeting of plasma physics section Heidelberg:  
-*Vergleich statistischer und molekulardynamischer Resultate zu Kurzzeit - Relaxation in dichten Plasmen*, K. Morawetz, M. Bonitz, G. Zwicknagel

### 2001

160. 19.3.-23.3.: DPG spring meeting of nuclear physics section Erlangen:  
-*Dynamical constraints on phase transitions*, K. Morawetz
161. -*Mid-rapidity charge distribution in peripheral heavy ion collisions*, K. Morawetz, P. Lipavský, J. Normand, D. Cussol, J. Colin, B. Tamain
162. 2.4.-6.4.: DPG spring meeting of plasma physics section Berlin:  
-*On a correspondence between classical and quantum particle systems*, K. Morawetz
163. -*Response function for interacting quantum liquids* K. Morawetz, U. Fuhrmann

### 2002

164. 11.3.-15.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Electric field dependence of pairing temperature and tunneling*, K. Morawetz

165. -*Space-time versus particle-hole symmetry in quantum Enskog equations*, K. Morawetz, V. Špička, P. Lipavský

**2003**

166. 24.3.-28.3.: DPG spring meeting of solid state physics section Dresden:  
-*Retarded versus time-nonlocal quantum kinetic equations*, K. Morawetz, P. Lipavský, V. Špička
167. -*Shifts of the nuclear resonance in the vortex lattice in  $YBa_2Cu_3O_7$* , K. Morawetz, P. Lipavský, J. Kolaček, E. H. Brandt
168. -*Formation of three-particle clusters in hetero-junctions and MOSFET structures*, K. Morawetz, E. Nakhmedov

**2004**

169. 08.3.-12.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Bernoulli potential in type-I and weak type-II superconductors*, K. Morawetz, P. Lipavský, J. Kolaček, J.J. Mares, E.H. Brandt, M. Schreiber
170. -*Consequences of coarse graining Vlasov equations*, K. Morawetz, R. Walke

**2005**

171. 04.3.-09.3.: DPG spring meeting Berlin:  
-*Electric fields above the surface of superconductors*, K. Morawetz, P. Lipavský, J. Kolaček, J. Mares, E.H. Brandt, M. Schreiber
172. -*Correlations in many-body systems with two-time Green's functions*, K. Morawetz, H.S. Köhler
173. -Hauptvortrag: *Der Quantum-Zenon Effekt und seine Implikation für die Zeit* K. Morawetz
174. -*Quantum two-particle problem in finite systems*, B. Schmidt, K. Morawetz, M. Schreiber, A. Ficker, P. Lipavský

**2006**

175. 27.3.-31.3.: DPG spring meeting Dresden:  
-*Enhancement of pairing due to the presence of resonant cavities*, K. Morawetz, B. Schmidt, M. Schreiber, P. Lipavský
176. -*What is hidden behind memory effects ?*, K. Morawetz, P. Lipavský
177. -*Moleculardynamical simulation with effective quantum potentials*, C. Olbrich, K. Morawetz
178. -*Femtosecond formation of collective modes due to meanfield fluctuations*, K. Morawetz, B. Schmidt, M. Schreiber, P. Lipavský
179. -*Reduction of surface coverage due to geometrical steps*, C. Olbrich, K. Morawetz, S. Gemming, M. Schreiber
180. -*High resolution nc-AFM investigation of the adsorption of PTCDA on ultrathin KBr films*, C. Loppacher, U. Zerweck, L.M. Eng, S. Gemming, G. Seifert, C. Olbrich, K. Morawetz, M. Schreiber

**2007**

181. 26.3.-30.3.: DPG spring meeting Regensburg:  
-*Vortex induced deformation of the superconductor crystal lattice*, K. Morawetz, P. Lipavský, J. Kolaček, E. H. Brandt

182. -*Ginzburg-Landau theory of superconducting surfaces under electric fields*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, T. Yang

183. -*Phase diagram for interacting Bose systems*, M. Maennel, K. Morawetz, M. Schreiber

### 2008

184. 24.3.-28.3.: DPG spring meeting Berlin:

-*Surface superconductivity and capacitance of superconductors under electric and magnetic fields*, K. Morawetz, P. Lipavský, J. Koláček, E. H. Brandt, M. Schreiber

185. -*Dominant motion vs. localization in quasiperiodic chains*, K. Morawetz, M. Schreiber

186. -*The chemical potential for the inhomogeneous electron liquid in terms of its kinetic and potential parts with special consideration of the surface potential step and BCS-BEC crossover*, K. Morawetz, N. H. March, R. H. Squire

187. -*Phase diagram for interacting Bose systems*, M. Maennel, K. Morawetz, M. Schreiber

### 2009

188. 23.3.-27.3.: DPG spring meeting Dresden:

-*Transport beyond the Fermi liquid picture of quasiparticles*, K. Morawetz

189. -*Discontinuity of capacitance at the onset of surface superconductivity*, K. Morawetz, P. Lipavský, J. Mares

### 2010

190. 22.3.-26.3.: DPG spring meeting Regensburg:

-*Conserving T-matrix theory of superconductivity*, K. Morawetz, P. Lipavský, M. Männel

### 2011

191. 14.3.-18.3.: DPG spring meeting Dresden:

-*Asymmetric Bethe-Salpeter equation for pairing and condensation*, K. Morawetz, P. Lipavský, M. Männel, B. Sopik

192. -*Change of critical temperature by electric fields*, K. Morawetz, P. Lipavský, J. Kolaček, E. H. Brandt

193. -*Spin and density response of interacting particles with spin-orbit coupling*, K. Morawetz, J. Kailasvuori, O. Bozat

194. -*Ginzburg-Landau theory for the early phase of morphogenesis of brine channels in sea ice*, S. Thoms, B. Kutschan, K. Morawetz, S. Gemming

### 2012

195. 26.3.-30.3.: DPG spring meeting Berlin:

-*Superposition of BEC and first-order phase transition in a repulsive Bose gas*, M. Männel, K. Morawetz, P. Lipavský

196. -*A new method to calculate partition functions*, K. Morawetz

### 2013

197. 11.3.-15.3.: DPG spring meeting Regensburg:

-*Stability of super-currents and condensates in type-I superconductors*, K. Morawetz, P. Lipavský, B. Sopik, M. Männel

198. -*Quasiparticle parametrization of meanfields, Galilean invariance and universal response function*, K. Morawetz

**2014**

199. 30.3.-4.4.: DPG spring meeting Dresden:  
-*Terahertz out-of-plane resonances due to spin-orbit coupling*, K. Morawetz
200. -*Formation of correlations at short time scales*, K. Morawetz

**2015**

201. 16.3.-20.3.: DPG spring meeting Berlin:  
-*Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz
202. -*Quantum transport and response with spin-orbit coupling in magnetic fields*, K. Morawetz
203. -*Asymmetric Bethe-Salpeter equation for pairing and condensation*, K. Morawetz, P. Lipavský

**2017**

204. 20.3.-24.3.: DPG spring meeting Dresden:  
-*Dynamical charge and pseudospin currents in graphene and possible Cooper pair formation*, K. Morawetz
205. -*Nonequilibrium thermodynamics by nonlocal quantum kinetic theory*, K. Morawetz, P. Lipavský
206. -*Induced voltage in an open wire*, K. Morawetz, M. Gilbert, A. Trupp

**2018**

207. 11.3.-16.3.: DPG spring meeting Berlin:  
-*Correlational latent heat by nonlocal quantum kinetic theory*, K. Morawetz
208. -*Transport in graphene and possible Cooper pair formation*, K. Morawetz
209. -*Conditions where RPA becomes exact in the high-density limit*, K. Morawetz, Vinod Ashokan, Renu Bala, Kare Narain Pathak
210. -*Anomaly transport in graphene and Weyl semimetals normally explained*, K. Morawetz

**2019**

211. 11.3.-15.3.: DPG spring meeting Rostock:  
-*Bose condensation of squeezed light*, K. Morawetz
212. 1.4.-5.4.: DPG spring meeting Regensburg:  
-*Anomaly transport normally explained*, K. Morawetz

**2021**

213. 30.8.-3.9.: DPG spring meeting Jena (online):  
-*Consistent solution of Einstein-Cartan equations with torsion outside matter*, K. Morawetz
214. -*Exploring anomalies by many-body correlations*, K. Morawetz
215. -*Correlational entropy by nonlocal quantum kinetic theory*, K. Morawetz
216. 27.9.-1.10.: DPG spring meeting (online):  
-*Bose condensation of squeezed light*, K. Morawetz

### 2023

- 217. 20.3.-24.3.: DPG (smuk) spring meeting Dresden:  
- *Time dependence of Hubble parameter by torsion*, K. Morawetz
- 218. 27.3.-31.3.: DPG (skm) spring meeting Dresden:  
- *Extended quasiparticle Padé approximation for non-Fermi liquids*, K. Morawetz
- 219. - *Exploring anomalies by many-body correlations*, K. Morawetz

### 2.3 Public talks and lectures for educational work and schools

- 220. 26.05.1993, *Das Weltbild der modernen Physik*, lutheran student group Rostock
- 221. WS 1993/94, *Ethik und Wissenschaft*, seminar 2 h/week (30h), together with Dr. Bull (Theology) Uni Rostock
- 222. 18.10.1993, *Vom Können zum Sollen, Ethik der Wissenschaft*, catholic student group Rostock
- 223. 1994, *Zur antropologischen Relevanz der modernen Physik*, catholic student group Rostock
- 224. 1994, *Geschichte und Gegenwart der Teleologie*, meeting with Polish student group Rostock
- 225. WS 1994/95, *Physik und Philosophie*, seminar 1 h/week (15h) Uni Rostock
- 226. WS 1996/97, *Physik und Philosophie*, seminar 2 h/week (30h) Uni Rostock
- 227. 1997, *Naturkausalität und Freiheit*, "Ernst- Moritz- Schlick Kreis" Rostock
- 228. 1998, *Naturwissenschaft und Religion*, meeting at the Youth Education House Teterow Rostock
- 229. SS 1999, *Physik und Philosophie*, studium generale, 2 h/week (30h), together with M. Vogt, Uni Rostock
- 230. 28.02.2002, *Supraleitung*, Lehrertag Dresden am MPIPKS
- 231. 09.04.2002, *Geschichte der Zeit*, Opening lecture *Aspekte der Zeit* studium generale, TU Dresden and MPIPKS
- 232. 22.05.2002, *Das Phänomen Supraleitung*, J. A. Huelse Gymnasium Dresden
- 233. 24.05.2002, *Das Phänomen Supraleitung*, Gymnasium Dreikönigsschule Dresden
- 234. 03.-05.02.2003, *Leitung und Supraleitung*, Winterschool of Dresden schools (supported by Robert Bosch Stiftung)
- 235. 06.03.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, St. Afra Gymnasium Meissen
- 236. 22.05.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Gymnasium Dresden
- 237. 05.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Albrecht-Thaer Gymnasium Hamburg

238. 12.06.2003, *Zur Geschichte des deterministischen Weltbildes*, Akademisches-Donnerstags-Kolloquium, Seniorenakademie Dresden
239. 12.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Martin-Andersen-Nexö Gymnasium Dresden
240. 14.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, X. Chemnitzer Schüler-Sommerschule
241. 21.11.2003, *Wenn die Eisenbahn anfängt zu schweben - Spannendes aus der Supraleitung*, Studium Generale, Lehrerweiterbildung TU-Chemnitz
242. 29.04.2004, *Supraleitung - Geschichte einer spannenden Entdeckung*, MPIPKS Dresden
243. 21.10.2004, *Supraleitung - Geschichte einer spannenden Entdeckung*, Kepler-Gymnasium Chemnitz
244. 29.10.2004, *Gott und das Weltbild der modernen Physik*, kath. Akademie Neustrelitz
245. 02.11.2004, *Wenn die Eisenbahn anfängt zu schweben-Spannendes aus der Supraleitung*, Seniorenkolleg Chemnitz
246. 12.04.2005, *Neues von der Supraleitung*, visiting Gymnasium Lyngby at MPIPKS Dresden
247. 18.07.2005, *Das Rätsel Zeit aus physikalischer Sicht*, XI. Chemnitzer Schüler-Sommerschule
248. 27.10.2005, *Das Rätsel Zeit aus physikalischer Sicht*, Verein zur Förderung der Sächsischen Physikolympiade e.V., Johannes-Kepler-Gymnasium Chemnitz
249. 06.12.2006, *Das Rätsel Zeit aus physikalischer Sicht*, Besuch des Gymnasiums Riesa am MPIPKS
250. 26.04.2007, *Das Rätsel Zeit aus physikalischer Sicht*, Besuch des Gymnasiums Dresden am MPIPKS
251. 27.07.2007, *Supraleitung - Geschichte einer spannenden Entdeckung*, Lehrertag, MPIPKS Dresden
252. 05.12.2007, *Das Rätsel Zeit aus physikalischer Sicht*, NOVALIS Forum Freiberg
253. 06.12.2007, *Das Rätsel Zeit aus physikalischer Sicht*, AGRICOLA Forum Chemnitz
254. 13.02.2008, *Das Rätsel Zeit aus physikalischer Sicht*, LEIBNIZ Forum Leipzig
255. 30.09.2008, *Das Rätsel Zeit aus physikalischer Sicht*, visiting teachers, FZ Dresden-Rossendorf
256. 15.12.2008, *Supraleitung - Geschichte einer spannenden Entdeckung*, Schülerdokter, MPIPKS Dresden
257. 13.02.2009, *Simulation von Nanobauteilen*, Lehrertag, FZ Dresden-Rossendorf
258. 30.10.2010, *Das Quantenphänomen Supraleitung*, MIND-Studentenakademie 2010, Köln
259. 21.03.2011, *Ist alles vorherbestimmt? Das Rätsel Zeit - zum Dialog von Physik und Religion*, ev. Gemeinde Dresden-Leuben



### 3. POSTER PRESENTATIONS

#### 3.1 Poster at international conferences and workshops

##### 1991

1. 18.11. - 21.11.: International Workshop on Nonideal Plasmas ( IWNP) Gosen bei Berlin:  
-*Relativistic kinetic theory and nucleon - meson - systems*
2. -*High electric fields in partially ionized hydrogen plasmas*

##### 1993

3. 20. - 24.9.: ICPIG in Bochum: *Partially ionized plasmas in high fields*
4. 19.7.-23.7.: Rostock, Poster to intensive course *Exakt lösbare Modelle der Quantenstatistik vieler Teilchen*

##### 1994

5. 30.5.-4.6.: Nucleous Nucleous collisions V in Taormina (Italy):  
-*In-medium relativistic kinetic theory*
6. -*Critical scattering in heavy ion reactions*
7. 23.8.-26.8.1994: XII. European Sectional Conference on the Atomic and Molecular Physics of Ionized Gases (ESCAMPIG):  
-*A new type plasma instabilities in high electric fields*, K. Morawetz, A. P. Jauho
8. -*Partially ionized hydrogen plasma in high electric fields- composition, transport and dielectric properties*

##### 1995

9. 11.9.-15.9.: International Conference on Physics of Strongly Coupled Plasmas, Binz: *Memory effects and nonideal plasmas*

##### 1996

10. 9.5.-11.5.: Nordic Statistical Physics Workshop, NORDITA, Niels-Bohr Institut Kopenhagen:  
*Critical cluster formation in heavy ion reactions*
11. 28.9.-3.10.: Chaotic Phenomena in Nuclear Physics, European Research Conference, Crete (Greece): *Influence of fluctuations on the damping of giant resonances*
12. 27.11.-29.11.: International Workshop Phase Transitions in Nuclear Collisions, Niels-Bohr Institut Kopenhagen: *Critical cluster formation in heavy ion reactions*

##### 1997

13. 2.6.-6.6.: VI. Nucleous-Nucleous conference in Gatlinburg:  
-*The contribution of density fluctuations to the damping of giant resonances*, K. Morawetz, U. Fuhrmann, R. Walke

14. *-Formation of correlations*, K. Morawetz, S. Koehler
15. *-Transport theory with nonlocal corrections*, K. Morawetz, P. Lipavský, V. Spička
16. 1.9.-5.9.: Atomic Nuclei and Metallic Clusters- Finite Many-Fermion Systems in Prague: *The contribution of density fluctuations and correlations to the damping of giant resonances*, K. Morawetz, U. Fuhrmann, R. Walke
17. 3.8.-10.8.: International Conference on Strongly Coupled Coulomb Systems, SCCS97, Boston: *-Debye-Onsager relaxation effect beyond linear Response*
18. *-Formation of binary correlations in plasma*, K. Morawetz, V. Spička, P. Lipavský
19. *-Virial corrections to the Landau theory of quasiparticle transport*, V. Spička, P. Lipavský, K. Morawetz
20. 22.9.-25.9.: 8th International Workshop on Atomic Physics for Ion-Driven Fusion, Heidelberg: *-Nonlinear Debye-Onsager relaxation effect*, K. Morawetz
21. *-Transport theory with nonlocal corrections*, K. Morawetz, V. Spička, P. Lipavský

**1998**

22. 11.5.-16.5.: Topical conference on giant resonances in Varenna, Italy: *-Damping rates of hot giant dipole resonances*, U. Fuhrmann, K. Morawetz, R. Walke
23. *-Giant resonance simulation in isospin asymmetric nuclei*, R. Walke, K. Morawetz, P. Schuck, U. Fuhrmann
24. *-Shape fluctuations and chaotic scattering in finite nuclei*, R. Walke, K. Morawetz, P. Schuck, U. Fuhrmann
25. 20.7.-24.7.: XXth IUPAP International conference on statistical physics, Paris: *-Nonlocal kinetic equation for strongly interacting Fermi systems*, K. Morawetz, P. Lipavský, V. Spička
26. *-Nonlocal corrections to the Boltzmann equation for dense Fermi systems*, V. Spička, K. Morawetz, P. Lipavský
27. *-Formation of correlations*, K. Morawetz, P. Lipavský, V. Spička
28. 6.9.-11.9.: International workshop on the physics of nonideal plasmas, PNP9, Rostock 1998: *-Dielectric properties of interacting storage ring plasmas*, A. Selchow, K. Morawetz
29. *-Nonlinear Debye-Onsager relaxation effect in plasma systems*, K. Morawetz, J. Ortner
30. *-Formation of binary correlations at short time scales*, K. Morawetz, P. Lipavský, V. Spička

**1999**

31. 4.9.-10.9.: International Conference on Strongly Coupled Coulomb Systems, St. Malo, France 1999: *-Formation of correlations*, K. Morawetz, P. Lipavský, V. Spička
32. *-Nonlinear current in high electric field plasmas*, K. Morawetz, J. Ortner
33. *-Nonlocal kinetic theory*, K. Morawetz, P. Lipavský, V. Spička

34. International Workshop: “Kadanoff-Baym Equations - Progress and Perspectives for Many-Body Physics” Rostock, September 20-24 1999:  
-*Relativistic Transport Equations with Generalized Mass Shell Constraints*, L. Mornas, and K. Morawetz
35. -*Space-time vs. particle-hole symmetries of scattering integrals*, V. Spicka, P. Lipavsky, and K. Morawetz

#### 2000

36. 9.6.: Workshop on nonequilibrium Physics at short time scales, Dresden 29.5.-23.6.:  
-*Nonlocal kinetic theory* K. Morawetz, P. Lipavsky, V. Spicka
37. -*Formation of correlations* K. Morawetz, S. Köhler, P. Lipavsky, V. Spicka
38. -*Damping of giant resonances* K. Morawetz, U. Fuhrmann, M. Vogt

#### 2002

39. 4.4.: Conference on Structure and Arrangement of Vortices in Superconductors, Prague 03.04.-07.04.:  
-*Electric field dependent pairing* K. Morawetz
40. 15.08.: Workshop on “Microscopic Chaos and Transport”, Dresden, 5.-24.8.02: *Nonlocal kinetic theory*

#### 2003

41. 09.05.: Workshop “Offshell Effects in Quantum Transport ” Dresden, 4.05.-18.05.2003:  
-*Electric fields in superconductors*, P. Lipavsky, J. Kolacek, K. Morawetz, E.H. Brandt
42. -*Anomalous radial expansion*, K. Morawetz, M. Ploszajczak, V.D. Toneev
43. -*A relation between classical and quantum systems*, K. Morawetz
44. -*Nonlocal kinetic theory*, K. Morawetz, P. Lipavsky, V. Špička

#### 2005

45. 03.03.: Workshop “Korrelatonstage 2005”, Dresden, 28.02.-04.3.05:  
-*Correlated two-particle scattering on finite cavities*
46. -*Metal-insulator transition in quasi-2D electron systems*

#### 2006

47. 05.02.-10.02.: Gordon research conference, Buellton, CA New London, U.S.A., “Ultrafast Phenomena in Cooperative Systems”:  
-*A relation between classical and quantum particle systems*, K. Morawetz
48. 25.04.: Workshop “Non-equilibrium Dynamics in Interacting Systems”, Dresden, 18.04.-05.5.06:  
-*Formation of collective modes and correlations at femtosecond time scales*, K. Morawetz, P. Lipavsky, M. Schreiber
49. -*What is hidden behind memory effects ? - Nonlocal kinetic theory*, K. Morawetz, P. Lipavsky
50. -*Anomalous radial expansion as signal of phase transition*  
*Correlated two-particle scattering on finite cavities*, K. Morawetz, M. Ploszajczak, V. D. Toneev

51. 17.05.: Workshop "Quantum Coherence, Noise and Decoherence in Nanostructures", Dresden, 15.05.-26.5.06:  
-*Metal-insulator transition in quasi-2D electron systems*, K. Morawetz, C. Olbrich, M. Schreiber
52. -*Transition from BEC to Cooperpairing near Resonant Cavities*, K. Morawetz, B. Schmidt, M. Schreiber
53. 23.05.:  
-*Enhancement of Pairing Temperature near Resonant Cavities*, K. Morawetz, B. Schmidt, M. Schreiber
54. -*Universal Features in Femtosecond Formation of Collective Modes*, K. Morawetz, P. Lipavsky, M. Schreiber
55. 05.06.-10.06.: International workshop on condensed matter theories (CMT30), Dresden, Germany  
- *Birth of a quasiparticle- Femtosecond response*, K. Morawetz, P. Lipavsky, M. Schreiber
56. - *What is hidden behind memory effects ? - Nonlocal Kinetic Theory*, K. Morawetz, P. Lipavský
57. -*Enhancement of Pairing Temperature near Resonant Cavities*, K. Morawetz, B. Schmidt, M. Schreiber
58. -*Metal-insulator transition in quasi-2D electron systems*, K. Morawetz, C. Olbrich, M. Schreiber
59. 09.07.-14.07.: 8th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors (M2S-HTSC-VIII) Dresden, Germany  
-*Electric fields in Superconductors*, K. Morawetz, P. Lipavský, J. Kolacek, E.-H. Brandt, M. Schreiber
60. -*Enhancement of pairing due to the presence of resonant cavities*, K. Morawetz, B. Schmidt, M. Schreiber, P. Lipavsky

### 2007

61. 16.-20.07.: 14th International Conference on Recent Progress in Many Body Theories (RPMBT14), Barcelona: *The Correlated Density and its Application to Superconductors*

### 2008

62. 05.-08.03.: International Workshop on Chaos and Collectivity in Many-Body Systems, Dresden:  
-*Enhancement of pairing near resonant atoms*
63. -*Fluctuations due to nonlocal collisions*
64. 27.10.-29.10.: International Workshop on Physics and Chemistry of FeAs-based Superconductors, Dresden: *Enhancement of  $T_c$  due to charge transfer*
65. 01.12.-06.12.: International Workshop on Nonequilibrium Nanostructures, Dresden: *Bose condensation for attractive interaction?*, M. Maennel, P. Lipavský, K. Morawetz, M. Schreiber

### 2009

66. 01.-05.03.: Workshop "Korrelationstage 2009" Dresden: *Quantum kinetic theory beyond the quasiparticle picture - Field effects in dense correlated systems*

67. Workshop on Routes to Superconductivity at Ambient Conditions, 13.4.-24.4.2009, ICCMP, Brasilia:  
-*Surface deformation caused by the Abrikosov vortex lattice*, P. Lipavský, K. Morawetz, J. Kolacek, E. H. Brandt
68. -*Surface superconductivity and capacitance of superconductors under electric and magnetic fields*, K. Morawetz, P. Lipavský, J. Kolacek, E. H. Brandt

**2010**

69. 28.5.-5.6.10 International Symposium on Sea Ice in the physical and biological system, Tromsø: *Formation of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Thoms
70. 27.9.-1.10.: International conference *Ultracold Quantum Gases Beyond Equilibrium*, Natal (BR): -*Multiple condensed phases in interacting Bose systems*, M. Maennel, K. Morawetz, P. Lipavský, M. Schreiber
71. 28.10.-30.10. IGS Nordic Branch meeting in Copenhagen: *Morphology of brine channel formation in sea ice*, B. Kutschan, K. Morawetz, S. Thoms

**2011**

72. 5.-6.10.11 Koordinations-Workshop SPP 1158, (Ebernburg, Bad Münster): *Brine Channel Formation in Sea Ice*, S. Thoms, B. Kutschan, K. Morawetz, S. Gemming, G. Dieckmann

**2012**

73. 26.-28.9.12 Koordinations-Workshop SPP 1158, (Jena): *Influence of salt and AFPs on the microstructure formation in sea ice*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming

**2013**

74. 11.3.-22.3.: 25th International Polar Congress, Hamburg, Germany:  
-*Phase field theory of brine entrapment in sea ice: Short time frozen microstructures*, S. Thoms, B. Kutschan, K. Morawetz
75. -*A mechanism of ice growth inhibition by AFPs*, B. Kutschan, S. Thoms, K. Morawetz
76. 15.04.-19.04.: Workshop on Spin-Orbit Interaction for Light and Matter Waves, MPIPKS Dresden, Germany: *Response to electric fields with spin-orbit coupling and magnetic fields*, K. Morawetz
77. 12.08.-30.08.: Workshop on Quantum Many Body Systems out of Equilibrium, MPIPKS Dresden, Germany  
- *Formation of Plasma and Bloch oscillations*, K. Morawetz, P. Lipavsky
78. - *Nonlocal Kinetic Theory*, K. Morawetz, P. Lipavský
79. 16.09.-20.09.: Workshop on Topology and Nonequilibrium in Low-Dimensional Electronic Systems, MPIPKS Dresden, Germany: *Quantum transport and response to electric fields in non-Abelian systems with spin-orbit coupling and magnetic fields*, K. Morawetz

**2014**

80. 8.1.-10.1.14: 550 WE-Heraeus-Seminar on 'Spin transport beyond Boltzmann' at the Physikzentrum Bad Honnef (Germany)  
-*Nonlocal quantum kinetic theory - Extended quasiparticle picture*, K. Morawetz, P. Lipavský
81. -*Terahertz out-of-plane resonances due to spin-orbit coupling*, K. Morawetz

82. 27.03.-29.03.: Workshop on Topological Matter Out of Equilibrium, MPIPKS Dresden, Germany:  
-*Nonlocal quantum kinetic theory - Extended quasiparticle picture*, K. Morawetz, P. Lipavsk'y

83. -*Terahertz out-of-plane resonances due to spin-orbit coupling*, K. Morawetz

#### 2015

84. 6.09.-11.09. 26th International Congress on Polar Research, Munich, Germany:  
-*Dynamical mechanism of antifreeze proteins*, K. Morawetz, B. Kutschan, S. Thoms

85. -*Huddle behaviour of emperor penguins*, K. Morawetz, F. Morawetz, D. Zitterbart

86. 28.9.-2.10. Int. conference *Korrelationstage*, Dresden, Germany: *Asymmetric Bethe-Salpeter equation - many phases of interacting Bose- and Fermi gases*

#### 2016

87. 29.02.-4.03.: Workshop on Topological Phenomena in Novel Quantum Matter: Laboratory Realization of Relativistic Fermions and Spin Liquids, MPIPKS Dresden, Germany  
*Quantum kinetic theory with spin-orbit coupling in magnetic and electric fields*, K. Morawetz

88. 2.05.-6.05.: Spring meeting of European Materials Research Society, Lille, France  
*Quantum kinetic theory with spin-orbit coupling in magnetic and electric fields*, K. Morawetz

#### 2017

89. 20.6.-23.6.: 14th Granada Seminar *Quantum Systems In and Out of Equilibrium: Fundamentals, dynamics and applications*, Universidad de Granada, Spain: *Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz

90. 17.8.-21.8.: International Conference on Ultra Low Temperature Physics *Frontiers of Low Temperature Physics*, Universität Heidelberg, Germany:  
-*Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz

91. -*Nonlocal quantum kinetic theory to simulate strong correlations*, K. Morawetz

92. -*Dynamical charge and pseudospin currents in graphene and possible Cooper pair formation*

#### 2021

93. 04.10.-08.10.: Ergodicity Breaking and Anomalous Transport in Quantum Many-Body Systems, International Workshop, MPIPKS Dresden: *Correlational entropy and nonlocal quantum kinetic theory*

### 3.2 Poster at DPG spring meetings

#### 1991

94. 12.3. - 14.3.: DPG spring meeting of plasma physics section in Kiel: *Heiße Elektronen in partiell ionisierten H-Plasmen*

#### 1992

95. 23. - 25.3.: DPG spring meeting of plasma physics section in Hannover: *Impact ionization of nonideal plasmas in strong electric fields*

**1993**

96. 9. - 11.3.: DPG spring meeting of plasma physics section in Greifswald: *Nonlinear transport of plasmas in strong electric fields*

**1994**

97. 7.3.-11.3.: DPG spring meeting of plasma physics section Erlangen: *Plasma Instabilities and anisotropy-effects in nonequilibrium*
98. 21.3.-25.3.: DPG spring meeting of nuclear physics section in Munich: *In-medium relativistic kinetic theory and critical scattering*

**1995**

99. 20.2.-23.2.: DPG spring meeting of plasma physics section in Innsbruck:  
-*New type of instability and the two- particle problem in dense plasmas under the influence of strong fields*
100. -*Stopping power and energy transfer in nonideal plasmas for inertial fusion*
101. 13.3.-17.3.: DPG spring meeting of nuclear physics section in Köln:  
-*The in-medium two-particle problem in high fields*
102. -*Deuteron formation in hot dense matter*
103. -*Quantum effects in heavy ion collision simulations*
104. -*Generalized quantum transport with memory effects and virial corrections in dense nuclear matter*

**1997**

105. 24.2.-28.2.: DPG spring meeting of nuclear physics section in Göttingen:  
-*Medium dependent transport in spin-polarized nuclear matter*, K. Morawetz, L. Mornas
106. -*The contribution of density fluctuations to the damping of giant resonances*, K. Morawetz, M. DiToro, U. Fuhrmann

**1998**

107. 9.3.-13.3.: DPG spring meeting of plasma physics section Bayreuth:  
-*Formation of correlations and screening in dense plasmas*, K. Morawetz, V. Spička, P. Lipavský
108. -*Nonlinear Debye-Onsager relaxation effect in plasma systems*, K. Morawetz, J. Ortner
109. 16.3.-20.3.: DPG spring meeting of nuclear physics section in Bochum:  
-*Formation of correlations and energy conservation at short time scales*, K. Morawetz, S. Koehler
110. -*New collective mode due to collisional coupling in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke, M. DiToro
111. -*Medium dependent transport in spin-polarized nuclear matter*, K. Morawetz, L. Mornas
112. -*Damping of giant resonances in symmetric and asymmetric nuclear matter*, U. Fuhrmann, K. Morawetz, R. Walke
113. -*Shape fluctuations and chaotic scattering in finite nuclei*, M. Vogt, K. Morawetz, U. Fuhrmann, R. Walke

**1999**

114. 15.3.-19.3.: DPG spring meeting of plasma physics section Heidelberg: *Nonlinear Debye-Onsager-Relaxation-Effect in Plasma Systems*, K. Morawetz, J. Ortner
115. 22.3.-26.3.: DPG spring meeting of nuclear physics section in Freiburg:  
-*Comparison of the collision delay and displacements within the Bonn and Paris potentials*, K. Morawetz, P. Lipavsky, V. Spicka, N. Kwong
116. -*Damping of giant dipole resonances in symmetric and asymmetric nuclear matter*, U. Fuhrmann, K. Morawetz, R. Walke, G. Röpke
117. -*Giant Octupole Resonance Simulations*, R. Walke, K. Morawetz
118. -*New collective mode due to collisional coupling in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke, M. DiToro
119. -*Chaotic scattering on surfaces and collisional damping of collective modes*, U. Fuhrmann, M. Vogt, K. Morawetz, P. Lipavsky, V. Spicka

**2001**

120. 19.3.-23.3.: DPG spring meeting of nuclear physics section Erlangen:  
-*Squeezing mode in nuclear collisions* K. Morawetz, P. Lipavský
121. -*Transport with three-particle interaction*, K. Morawetz
122. -*Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V.D. Toneev
123. 2.4.-6.4.: DPG spring meeting of plasma physics section Berlin:  
-*Retarded versus time-nonlocal quantum kinetic equations*, K. Morawetz, P. Lipavský, V. Špička
124. -*Nonlinear relaxation field in charged systems under high electric fields* K. Morawetz

**2002**

125. 11.3.-15.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Conductivity in quasi two-dimensional systems*, K. Morawetz
126. -*Bifurcation in kinetic equation for interacting Fermi systems*, K. Morawetz
127. -*A relation between classical and quantum particle systems*, K. Morawetz

**2003**

128. 24.3.-28.3.: DPG spring meeting of solid state physics section Dresden:  
-*Electrodynamic potential in a superconductor*, K. Morawetz, P. Lipavský, J. Kolaček, E.H. Brandt
129. -*Bernoulli potential at a superconductor surface* P. Lipavský, K. Morawetz, J. Kolaček, E.H. Brandt

**2004**

130. 8.3.-12.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Budd-Vannimenus theorem for superconductors*, P. Lipavský, K. Morawetz, J. Kolaček, J.J. Mares, E.H. Brandt, M. Schreiber
131. -*Exactly solvable model of three interacting particles in an external magnetic field*, E.P. Nakhmedov, K. Morawetz, M. Ameduri, A. Yurtsever, C. Radehaus

132. -*Metal-Insulator transition in quasi 2D systems*, K. Morawetz

**2005**

133. 4.3.-9.3.: DPG spring meeting Berlin:

-*Two-particle correlations in crystalline systems*, K. Morawetz, E.P. Nakhmedov, B. Schmidt, M. Schreiber, C. Radehaus

134. -*Surface potential in superconductors*, P. Lipavský, K. Morawetz, J. Koláček, J. Mares, E.H. Brandt, M. Schreiber

135. -*Quantum two-particle scattering on finite cavities*, K. Morawetz, M. Schreiber, B. Schmidt, A. Ficker, P. Lipavský

136. -*Bifurcation in kinetic equation for interacting Fermi systems*, K. Morawetz

137. -*Dynamical local fields for quasiparticles* K. Morawetz

138. -*Exactly solvable model of three interacting particles in an external magnetic field*, E. P. Nakhmedov, K. Morawetz, M. Ameduri, A. Yurtsever, C. Radehaus

139. -*Metal-Insulator transition in quasi 2D systems*, K. Morawetz

140. -*A relation between classical and quantum particle systems- Application to plasmas at short time scales*, K. Morawetz

141. -*A relation between classical and quantum particle systems*, K. Morawetz

142. -*Dynamical constraints and signals of phase transitions*, K. Morawetz

143. -*Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V. D. Toneev

144. -*A multi-parameter Ising model for the adsorption of molecules on structured surfaces*, C. Olbrich, K. Morawetz, S. Gemming, R. Scholz, M. Schreiber, R. Ermrich, G. Seifert

**2006**

145. 27.3.-31.3.: DPG spring meeting Dresden:

-*Bernoulli potential at superconductor surfaces*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber

146. -*Electric fields at superconductor surfaces*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber

147. -*Dynamical local field corrections*, K. Morawetz

148. -*Metal-Insulator transition in heterojunctions*, K. Morawetz, C. Olbrich, M. Schreiber

149. -*Formation of species diversity due to self-organized criticality*, K. Morawetz, N. Amecke, R. Radünz, M. Döring, M. Schreiber

**2007**

150. 26.3.-30.3.: DPG spring meeting Regensburg:

-*Formation of Bloch-oscillations and plasma frequency in femtosecond excited semiconductors*, K. Morawetz, P. Lipavský, M. Schreiber

151. -*Reduction of surface coverage of finite systems due to geometrical steps*, K. Morawetz, C. Olbrich, S. Gemming, M. Schreiber

152. *-Fluctuations due to the nonlocal character of collisions*, K. Morawetz
153. *-Frustrated Ising- and Heisenberg-type Spin Systems on a Hexagonal Lattice*, C. Olbrich, T. Kunze, S. Gemming, K. Morawetz, M. Schreiber

**2008**

154. 26.3.-30.3.: DPG spring meeting Berlin:  
*-Contribution of the surface dipole to deformation of superconductors*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber
155. *-The concept of correlated density and its application*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber
156. *-Phase diagram for interacting Bose systems*, M. Maennel, K. Morawetz, M. Schreiber

**2009**

157. 23.3.-27.3.: DPG spring meeting Dresden:  
*-Bose condensation for attractive interaction?*, M. Männel, P. Lipavský, K. Morawetz, M. Schreiber
158. *-Surface deformation caused by the Abrikosov vortex lattice*, P. Lipavský, K. Morawetz, J. Kolacek, E. H. Brandt
159. *-Surface superconductivity and capacitance of superconductors under electric and magnetic fields*, K. Morawetz, P. Lipavský, J. Kolacek, E. H. Brandt
160. *-Current without external bias and diode effect in shuttling transport of nanoshafts*, K. Morawetz, S. Gemming, R. Luschtinetz, L. Eng, G. Seifert, A. Kenfack
161. *-Transport and noise in organic field effect devices*, K. Morawetz, S. Gemming, R. Luschtinetz, T. Kunze, P. Lipavsky, L. Eng, G. Seifert
162. *-Modelling the transport through organic layers on a ferroelectric substrate*, T. Kunze, S. Gemming, R. Luschtinetz, V. Pankoke, K. Morawetz

**2010**

163. 22.3.-26.3.: DPG spring meeting Regensburg:  
*-Surface superconductivity controlled by electric field*, K. Morawetz, P. Lipavský, J. Kolaček
164. *-Modeling the morphogenesis of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Gemming
165. *-Multiple condensed phases in interacting Bose systems*, M. Maennel, K. Morawetz, P. Lipavský, M. Schreiber

**2011**

166. 14.3.-18.3.: DPG spring meeting Dresden:  
*-Single particle and bound state condensation in interacting Bose gases*, M. Maennel, K. Morawetz, P. Lipavsky, M. Schreiber
167. *-Discontinuity of capacitance at the onset of surface superconductivity controlled by electric fields*, K. Morawetz, P. Lipavský, J. Kolaček
168. *-Condensation of bound states and pairs in interacting Fermi gases*, M. Maennel, K. Morawetz, P. Lipavsky, M. Schreiber

169. -*Brine channel formation by phase separation in sea ice*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming

**2012**

170. 26.3.-30.3.: DPG spring meeting Berlin:  
-*Instability types at ion-assisted alloy deposition: from surface to bulk nanopatterning*, G. Abrasonis, K. Morawetz
171. -*Modeling the morphogenesis of brine channels in sea ice*, S. Thoms, B. Kutschan, K. Morawetz, S. Gemming
172. -*Instability of a repulsive Bose gas near the BEC transition*, M. Maennel, K. Morawetz, P. Lipavský

**2013**

173. 11.3.-15.3.: DPG spring meeting Jena:  
-*Influence of AFPs on the crystal growth in solidification of water*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming
174. 11.3.-15.3.: DPG spring meeting Regensburg:  
-*Coexistence of phase transitions and hysteresis near BEC*, M. Männel, K. Morawetz, P. Lipavský
175. -*Floating charged liquid bridges*, K. Morawetz
176. -*Galilean invariance and universal response function*, K. Morawetz

**2014**

177. 17.3.-21.3.: DPG spring meeting Berlin:  
-*Freezing mechanisms of antifreeze proteins*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming
178. -*Morphogenesis of short-time frozen microstructures in sea ice*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming
179. 30.3.-4.4.: DPG spring meeting Dresden:  
-*Formation and hybridization of Bloch and plasma oscillations*, K. Morawetz, P. Lipavský
180. -*Nonlocal quantum kinetic theory*, K. Morawetz, P. Lipavský
181. -*Quantum transport and response to electric fields in non-Abelian systems with spin-orbit coupling and magnetic fields*, K. Morawetz
182. -*Stability of supercurrents and condensates in type I superconductors*, K. Morawetz, P. Lipavský, B. Sopik, M. Männel

**2015**

183. 16.3.-20.3.: DPG spring meeting Berlin:  
-*Nonlocal quantum kinetic theory*, K. Morawetz, P. Lipavský
184. -*Currents in a chain of quantum dots*, K. Morawetz

**2017**

185. 20.3.-24.3.: DPG spring meeting Dresden:  
-*Currents in a chain of quantum dots*, K. Morawetz

186. *-Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz
187. *Huddle-behavior simulation of emperor penguins*, F. Morawetz, K. Morawetz, D. Zitterbart
188. *-Exciton-light binding and lifetime of polaritons*, H. Lagemann, K. Morawetz
189. *-Quantum transport and response with spin-orbit coupling in magnetic fields*, K. Morawetz

**2018**

190. 11.3.-16.3.: DPG spring meeting Berlin:  
*-Quantum currents and pair correlation of electrons in a chain of localized dots*, K. Morawetz
191. *-Reversed Currents in Charged Liquid Bridges*, K. Morawetz
192. *-Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz
193. *-Coexistence of phase transitions and hysteresis near the onset of Bose-Einstein condensation*, K. Morawetz
194. *-Quantum transport and response with spin-orbit coupling in magnetic fields*, K. Morawetz
195. *-Currents in graphene and possible Cooper pair formation*,
196. *-Dependence of structure factor and correlation energy on the width of electron wires*, K. Morawetz, V. Ashokan, R. Bala, K. N. Pathak
197. *-Universal short-time response and formation of collective mode*, K. Morawetz

**2019**

198. 11.3.-15.3.: DPG spring meeting Rostock:  
*-Coexistence of phase transitions and hysteresis near the onset of Bose-Einstein condensation*, M. Männel, K. Morawetz
199. 1.4.-5.4.: DPG spring meeting Regensburg:  
*-Correlational latent heat by nonlocal quantum kinetic theory*, K. Morawetz
200. *-Exact high-density limit calculation for quantum wires*, K. Morawetz, V. Ashokan, R. Bala, K. N. Pathak
201. *-Transport in graphene and possible Cooper pair formation*, K. Morawetz
202. *-Anomaly transport in graphene and Weyl semimetals*, K. Morawetz
203. *-Bose condensation of squeezed light*, K. Morawetz

**2021**

204. 27.9.-1.10.: DPG spring meeting (online):  
*-RPA as exact high-density limit of 1D correlated electrons*, K. Morawetz, Vinod Ashokan, Renu Bala, Kare Narain Pathak
205. *-Correlational entropy by nonlocal quantum kinetic theory*, K. Morawetz
206. *-Universal short-time response and formation of correlations after quantum quenches*, K. Morawetz

207. -*Weyl systems: anomalous transport normally explained*, K. Morawetz
208. -*Interplay of viscosity and surface tension for ripple formation by external laser melting*, K. Morawetz, Sarah Trinschek, Evgeny Gurevich
209. -*Bose condensation of squeezed light*, K. Morawetz
210. -*Charged Liquid Bridges*, K. Morawetz

**2023**

211. 20.3.-24.3.: DPG (smuk) spring meeting Dresden:  
-*Exploring anomalies by many-body correlations*, K. Morawetz
212. -*Correlational entropy by nonlocal quantum kinetic theory*, K. Morawetz
213. 27.3.-31.3.: DPG (skm) spring meeting Dresden:  
-*Ground state properties of electron-electron biwire systems*, Rajesh O. Sharma, Neil Drummond, Vinod Ashokan, Kare Narain Pathak, Klaus Morawetz
214. -*Electron correlation and confinement effects in quasi-one-dimensional quantum wires at high-density*, Ankush Girdhar, Vinod Ashokan, Neil Drummond, Klaus Morawetz, Kare Narain Pathak



## 4. DOCUMENTS

Diploma

PhD (German)

Habilitation (German)

Qualification aux fonctions de Professeur des universités (French)

Lecture permission (German)

Guestprofessorship at ICCMP (Brazil)

Prize of best publication from Charles University Prague

Professorship at FH Münster