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# 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. Annales de physique, 26,1 (2001) ISBN 2-86883-541-4: *Kinetic theory for strongly interacting Fermi systems*, 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

## 1.2 Editor of books

5. 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
6. *Nonequilibrium at short time scales*, Springer Verlag, Berlin (2004), ISBN 3-540-20031-2, ed. by K. Morawetz, 476 pages
7. *Structure, disorder and correlations*, phys. stat. solidi (b) 241 no.9 (2004) 2007-2210 ed. by K. Morawetz, 203 pages
8. *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

9. *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
10. *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
11. *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

12. *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
13. *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

#### 1.4 Publications in refereed journals

##### 1992

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

##### 1993

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

##### 1994

21. *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
22. *Phys. Rev.* **E 50**,1 474-479: *Plasma Instabilities in High Electric Fields*, K. Morawetz, A.P. Jauho
23. *Phys. Rev.* **E 50**,5 4625-4635: *Theory of Fluctuations in High Electric Fields*, K. Morawetz
24. *Phys. Lett.* **A 190** 96-100: *Suppression of the effect of collisions due to memory effects*, K. Morawetz, R. Walke and G. Röpke

##### 1995

25. *Phys. Rev.* **E 51** 4246-4266: *Memory Effects and Virial Corrections in Nonequilibrium Dense Systems*, K. Morawetz, G. Röpke
26. *Phys. Lett.* **A 199** 241-245: *The Landau equation including Memory and Energy Conservation*, K. Morawetz
27. *Z. Phys.* **A 352** 265-274: *In-medium Kinetic Theory and Nucleon -Meson Systems*, K. Morawetz, D. Kremp

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28. Z. Phys. **A 355** 287-299: *In-medium two-nucleon properties in high electric fields*, K. Morawetz, G. Röpke
29. 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
30. Phys. Rev. **E 54**,3 4134-4147: *Stopping power in nonideal dense plasmas*, K. Morawetz, G. Röpke
31. Laser and Particle Beams **14**,4 611-624: *Stopping power in nonideal plasmas*, K. Morawetz

**1997**

32. Phys. Rev. **C 55** 1015-1017 rap. comm.: *Exact Solution of selfconsistent Vlasov equation*, K. Morawetz
33. Phys. Rev. **A 55** 1945-1951: *Medium modification of two-particle scattering in nonideal Bose systems*, H. Stein, K. Morawetz, G. Röpke
34. Phys. Rev. **B 55** 5084-5095: *Quasiparticle transport equation with collisional delay: I. Phenomenological approach*, V. Spička, P. Lipavský, K. Morawetz
35. Phys. Rev. **B 55** 5095-5111: *Quasiparticle transport equation with collisional delay: II. Quantum statistical approach*, V. Spička, P. Lipavský, K. Morawetz
36. 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
37. Laser and Particle Beams **15**, 507-521: *Stopping power in strongly coupled plasmas*, K. Morawetz

**1998**

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

**1999**

45. 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

46. Nucl. Phys. **A 649** 348c-354c: *Damping of giant resonances in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke
47. 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
48. Phys. Rev. **C 60** 17301-17303: *Giant octupole resonance simulations*, R. Walke, K. Morawetz
49. 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
50. Phys. Rev. **E 59** 1015-1025: *Dielectric properties of interacting storage ring plasmas*, errate Phys. Rev. **E 69**, 039902(E) A. Selchow, K. Morawetz
51. Phys. Rev. **E 59** 1291-1294 rap. comm.: *Noninstantaneous collisions and two concepts of quasiparticles*, P. Lipavský, V. Spička, K. Morawetz
52. Eur. Phys. J. **A 4** 291-305: *Formation of correlations and energy conservation at short time scales*, K. Morawetz, H. S. Köhler
53. Contrib. Plasma Phys. **39** 41-44: *Quasiparticle Boltzmann equation for nonlocal binary collisions*, K. Morawetz, P. Lipavský, V. Spička
54. 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

55. Phys. Rev. **E 61** 2272-2280: *General response function for interacting quantum liquids*, K. Morawetz, U. Fuhrmann
56. Phys. Rev. **E 61** 2555-2558: *Quantum response of finite Fermi systems and the relation of Lyapunov exponent to transport coefficients*, K. Morawetz
57. Phys. Rev. **E 62** 4382-4386: *Momentum conservation and local field corrections for the response of interacting Fermi gases* K. Morawetz, Uwe Fuhrmann
58. Phys. Rev. **C 62** 044606-1-11: *Dynamical constraints on phase transitions*, K. Morawetz
59. 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
60. Phys. Rev. **C 62** 064602-1-10: *Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V.D. Toneev
61. 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

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

65. Phys. Rev. **C 63** 061602-1-5 rap. comm.: *Squeezing mode in nuclear collisions*, K. Morawetz, P. Lipavský
66. Phys. Rev. **C 64** 024613-1-13: *Correlations in many-body systems from two-time Greens functions*, S. Köhler, K. Morawetz
67. 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
68. Annals of Physics **294** 135-164: *Retarded versus time-nonlocal quantum kinetic equations*, K. Morawetz, P. Lipavský, V. Spička

### 2002

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

### 2003

77. Phys. Rev. **B 67** 115125-1-13: *Conductivity in quasi two-dimensional systems*, K. Morawetz
78. CHAOS **13** 572-577: *Bifurcations in the kinetic equation for interacting Fermi systems*, K. Morawetz
79. Physica **A 330** 475-501, errata: Physica **A 338**, 672: *Consequences of coarse grained Vlasov equations*, K. Morawetz, R. Walke
80. 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

81. 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
82. Europhys. Lett. **67** 77–83: *Effective mass in quasi two-dimensional systems*, K. Morawetz

83. 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

84. 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
85. Phys. Rev. **B 72** 014301-1-15: *Correlated two-particle scattering on finite cavities*, K. Morawetz, M. Schreiber, B. Schmidt, A. Ficker, P. Lipavský
86. 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
87. Phys. Rev. **B 72** 233203-1-4: *Femtosecond formation of collective modes due to mean-field fluctuations*, K. Morawetz, P. Lipavský, M. Schreiber

### 2006

88. 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
89. 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

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

### 2008

93. 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
94. 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
95. Eur. Phys. J. **B 62**, 311-317: *Reduction of surface coverage or magnetization due to geometrical steps*, K. Morawetz, C. Olbrich, S. Gemming
96. Phys. Rev. **B 77**, 184509-1-7: *Surface deformation caused by the Abrikosov vortex lattice*, P. Lipavský, K. Morawetz, J. Koláček, E. H. Brandt
97. Phys. Rev. **B 78** 054508-1-5: *Phase diagram and binding energy of interacting Bose gases*, M. Maennel, K. Morawetz, M. Schreiber, P. Lipavsky
98. 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

99. New J. Phys. **10** 103014-1-8: *Current without bias and diode effect in shuttling transport of nanoshafits*, K. Morawetz, S. Gemming, R. Luschtinetz, L. M. Eng, G. Seifert, A. Kenfack
100. 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**

101. 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
102. New J. Phys. **11**, 023032-1-8: *Discontinuity of capacitance at the onset of surface superconductivity*, K. Morawetz, P. Lipavský, J.J. Mareš
103. 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

**2010**

104. Phys. Lett. **A 374**, 644-646: *Impossibility to describe repulsion with contact interaction*, K. Morawetz, M. Männel
105. 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
106. New J. Phys. **12**, 033013-1-9: *Multiple condensed phases in attractively interacting Bose systems*, M. Männel, K. Morawetz, P. Lipavský
107. Phys. Rev. **E 81**, 036106-1-10: *Modeling the morphogenesis of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Gemming
108. Phys. Rev. **B 81** 092501-1-4: *Equivalence of channel-corrected T-matrix and anomalous propagator approach*, K. Morawetz

**2011**

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

**1.5 Submitted papers**

111. Phys. Rev. B sub., arXiv:0706.1854: *Two-particle binding energy of interacting Bose gases*, K. Morawetz, M. Maennel, M. Schreiber, P. Lipavský
112. Phys. Rev. Lett. sub., arXiv:0906.3677: *Conserving T-matrix theory of superconductivity*, B. Šopík, P. Lipavský, M. Männel, K. Morawetz
113. Phys. Rev. B sub., arXiv:1008.5293: *Stability of condensate in superconductors*, P. Lipavský, B. Šopík, M. Männel, K. Morawetz
114. Phys. Rev. B sub., arXiv:1107.0459: *Theory of water and charged liquid bridges*, K. Morawetz

115. Phys. Rev. B sub., arXiv:: *Quasiparticle parametrization of meanfields, Galilei invariance and conserving response functions*, K. Morawetz
116. Phys. Rev. B sub., arXiv:1109.5461: *Instability types at ion-assisted alloy deposition: from two-dimensional to three-dimensional nanopattern growth*, G. Abrasonis, K. Morawetz

## 1.6 Conference proceedings and reports

### 1992

117. 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

118. 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
119. 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. Schlanges, D. Kremp,
120. *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

121. 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
122. *ibid.* p. 454-455: *Partially ionized Hydrogen Plasma in high electric fields- composition, transport and dielectric properties*, K. Morawetz

### 1995

123. 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
124. 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

125. 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
126. GSI-Jahresbericht 1995, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 69: *Stopping power in nonideal plasmas*
127. *ibid.* p.70: *The Influence of Memory and Correlation on the Stopping Power*
128. *ibid.* p. 74: *Virial corrections to the Landau theory of Quasiparticle Transport*

**1997**

129. *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
130. 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*
131. *ibid.* p. 100: *Formation of correlations in plasma at short time scales*
132. *ibid.* p. 101: *The consistent kinetic equation and the equation of state of nuclear matter*

**1998**

133. 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
134. 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
135. *ibid.* p. 102: *Formation of correlations in strongly coupled plasmas*, K. Morawetz, V. Spička, P. Lipavský

**1999**

136. 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
137. 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
138. *ibid.* p. 93-95: *Damping of IVGDR - Fermi liquid or Fermi gas ?*, K. Morawetz, U. Fuhrmann, M. Vogt
139. GSI-Jahresbericht 1998, *High Energy Density in Matter Produced by Heavy Ion Beams*, p. 72: *Short time dynamics with initial correlations*, K. Morawetz
140. 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
141. 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
142. *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
143. *ibid.* p. 100-110: *Space-time vs. particle-hole symmetries of scattering integrals*, V. Spicka, P. Lipavsky, and K. Morawetz
144. *ibid.* p. 353-363: *Relativistic Transport Equations with Generalized Mass Shell Constraints*, L. Mornas, and K. Morawetz

**2000**

145. 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
146. ibid. pr5-179-182: *Nonlocal kinetic theory, I. Formation of correlations*, K. Morawetz, P. Lipavský, V. Spička
147. ibid. pr5-183-186: *Nonlocal kinetic theory, II. Transport and virial corrections*, K. Morawetz, P. Lipavský, V. Spička
148. 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
149. ibid. p. 93: *Nonlinear current in high electric fields beyond linear response*, K. Morawetz

**2001**

150. 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
151. 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**

152. 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
153. 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. Spicka, 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. Spicka
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, Brasilia: *Correlated density and superconductivity*
- 95. *Electric fields in superconductors and jump of capacitance*
- 96. 03.10.: Novel approaches to pairing and condensation, MPIPES, 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: *Morphology of brine channel formation in sea ice*, B. Kutschan, K. Morawetz, S. Thoms

## 2.2 Oral contributions at DPG spring meetings

### 1992

101. 24.2.-28.2.: DPG spring meeting of nuclear physics section in Salzburg: *Relativistic kinetic theory and nucleon-meson-systems*

### 1993

102. 23. - 26.3.: DPG - spring meeting of nuclear physics section in Mainz: *Density fluctuations in dense hot nonequilibrium matter*

### 1994

103. 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

104. 13.3.-17.3.: DPG spring meeting of nuclear physics section in Köln: *Memory-effects and bound states in nuclear matter*

105. 20.2.-23.2.: DPG spring meeting of plasma physics section Innsbruck: *Memory effects and virial corrections in nonideal plasmas*

### 1996

106. 18.3.-21.3.: DPG spring meeting of plasma physics section Rostock:  
-*Memory effects and virial corrections in nonideal plasmas*

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

108. -*Stopping power in nonideal degenerated plasmas*

109. 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*

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

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

### 1997

112. 3.3.-6.3.: DPG spring meeting of plasma physics section Mainz:  
-*Virial corrections to the Landau theory of quasiparticle transport*

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

114. -*Stopping Power in starken Feldern*

115. -*Zeitabhängige Korrelationen in dichten Plasmen*

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

117. 24.2.-28.2.: DPG spring meeting of nuclear physics section in Göttingen:  
-*Virial corrections to the Landau theory of quasiparticle transport*

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

### 1998

122. 9.3.-13.3.: DPG spring meeting of plasma physics section Bayreuth:  
-*Correlation dynamics in plasmas at short time scales*, M. Bonitz, K. Morawetz
123. -*Nonlocal corrections to the Boltzmann equation for dense plasmas*, K. Morawetz, V. Spička, P. Lipavský
124. 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
125. 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
126. -*Giant octupole resonance simulations*, R. Walke, K. Morawetz, P. Schuck, U. Fuhrmann
127. 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

128. 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
129. 15.3.-19.3.: DPG spring meeting of short time physics section in Heidelberg:  
-*Aufbau von Korrelationen in Plasmen auf kurzen Zeitskalen*, K. Morawetz
130. 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

131. 19.3.-23.3.: DPG spring meeting of nuclear physics section Erlangen:  
-*Dynamical constraints on phase transitions*, K. Morawetz
132. -*Mid-rapidity charge distribution in peripheral heavy ion collisions*, K. Morawetz, P. Lipavský, J. Normand, D. Cussol, J. Colin, B. Tamain
133. 2.4.-6.4.: DPG spring meeting of plasma physics section Berlin:  
-*On a correspondence between classical and quantum particle systems*, K. Morawetz
134. -*Response function for interacting quantum liquids* K. Morawetz, U. Fuhrmann

### 2002

135. 11.3.-15.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Electric field dependence of pairing temperature and tunneling*, K. Morawetz

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

**2003**

137. 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
138. -*Shifts of the nuclear resonance in the vortex lattice in  $YBa_2Cu_3O_7$* , K. Morawetz, P. Lipavský, J. Kolaček, E. H. Brandt
139. -*Formation of three-particle clusters in hetero-junctions and MOSFET structures*, K. Morawetz, E. Nakhmedov

**2004**

140. 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
141. -*Consequences of coarse graining Vlasov equations*, K. Morawetz, R. Walke

**2005**

142. 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
143. -*Correlations in many-body systems with two-time Green's functions*, K. Morawetz, H.S. Köhler
144. -Hauptvortrag: *Der Quantum-Zenon Effekt und seine Implikation für die Zeit* K. Morawetz
145. -*Quantum two-particle problem in finite systems*, B. Schmidt, K. Morawetz, M. Schreiber, A. Ficker, P. Lipavský

**2006**

146. 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
147. -*What is hidden behind memory effects ?*, K. Morawetz, P. Lipavský
148. -*Moleculardynamical simulation with effective quantum potentials*, C. Olbrich, K. Morawetz
149. -*Femtosecond formation of collective modes due to meanfield fluctuations*, K. Morawetz, B. Schmidt, M. Schreiber, P. Lipavský
150. -*Reduction of surface coverage due to geometrical steps*, C. Olbrich, K. Morawetz, S. Gemming, M. Schreiber
151. -*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**

152. 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

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

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

### 2008

155. 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

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

157. -*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

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

### 2009

159. 23.3.-27.3.: DPG spring meeting Dresden:  
-*Transport beyond the Fermi liquid picture of quasiparticles*, K. Morawetz

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

### 2010

161. 22.3.-26.3.: DPG spring meeting Regensburg:  
-*Conserving T-matrix theory of superconductivity*, K. Morawetz, P. Lipavský, M. Männel

### 2011

162. 14.3.-18.3.: DPG spring meeting Dresden:  
-*Asymmetric Bethe-Salpeter equation for pairing and condensation*, K. Morawetz, P. Lipavský, M. Männel, B. Sopik

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

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

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

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

166. 26.05.1993, *Das Weltbild der modernen Physik*, lutheran student group Rostock

167. WS 1993/94, *Ethik und Wissenschaft*, seminar 2 h/week (30h), together with Dr. Bull (Theology) Uni Rostock

168. 18.10.1993, *Vom Können zum Sollen, Ethik der Wissenschaft*, catholic student group Rostock
169. 1994, *Zur antropologischen Relevanz der modernen Physik*, catholic student group Rostock
170. 1994, *Geschichte und Gegenwart der Teleologie*, meeting with Polish student group Rostock
171. WS 1994/95, *Physik und Philosophie*, seminar 1 h/week (15h) Uni Rostock
172. WS 1996/97, *Physik und Philosophie*, seminar 2 h/week (30h) Uni Rostock
173. 1997, *Naturkausalität und Freiheit*, "Ernst- Moritz- Schlick Kreis" Rostock
174. 1998, *Naturwissenschaft und Religion*, meeting at the Youth Education House Teterow Rostock
175. SS 1999, *Physik und Philosophie*, studium generale, 2 h/week (30h), together with M. Vogt, Uni Rostock
176. 28.02.2002, *Supraleitung*, Lehrertag Dresden am MPIPKS
177. 09.04.2002, *Geschichte der Zeit*, Opening lecture *Aspekte der Zeit* studium generale, TU Dresden and MPIPKS
178. 22.05.2002, *Das Phänomen Supraleitung*, J. A. Huelse Gymnasium Dresden
179. 24.05.2002, *Das Phänomen Supraleitung*, Gymnasium Dreikönigsschule Dresden
180. 03.-05.02.2003, *Leitung und Supraleitung*, Winterschool of Dresden schools (supported by Robert Bosch Stiftung)
181. 06.03.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, St. Afra Gymnasium Meissen
182. 22.05.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Gymnasium Dresden
183. 05.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Albrecht-Thaer Gymnasium Hamburg
184. 12.06.2003, *Zur Geschichte des deterministischen Weltbildes*, Akademisches-Donnerstags-Kolloquium, Seniorenakademie Dresden
185. 12.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, Martin-Andersen-Nexö Gymnasium Dresden
186. 14.06.2003, *Supraleitung - Geschichte einer spannenden Entdeckung*, X. Chemnitzer Schüler-Sommerschule
187. 21.11.2003, *Wenn die Eisenbahn anfngt zu schweben - Spannendes aus der Supraleitung*, Studium Generale, Lehrerweiterbildung TU-Chemnitz
188. 29.04.2004, *Supraleitung - Geschichte einer spannenden Entdeckung*, MPIPKS Dresden
189. 21.10.2004, *Supraleitung - Geschichte einer spannenden Entdeckung*, Kepler-Gymnasium Chemnitz
190. 29.10.2004, *Gott und das Weltbild der modernen Physik*, kath. Akademie Neustrelitz
191. 02.11.2004, *Wenn die Eisenbahn anfängt zu schweben-Spannendes aus der Supraleitung*, Seniorenkolleg Chemnitz

192. 12.04.2005, *Neues von der Supraleitung*, visiting Gymnasium Lyngby at MPIPKS Dresden
193. 18.07.2005, *Das Rätsel Zeit aus physikalischer Sicht*, XI. Chemnitzer Schüler-Sommerschule
194. 27.10.2005, *Das Rätsel Zeit aus physikalischer Sicht*, Verein zur Förderung der Sächsischen Physikolympiade e.V., Johannes-Kepler-Gymnasium Chemnitz
195. 06.12.2006, *Das Rätsel Zeit aus physikalischer Sicht*, Besuch des Gymnasiums Riesa am MPIPKS
196. 26.04.2007, *Das Rätsel Zeit aus physikalischer Sicht*, Besuch des Gymnasiums Dresden am MPIPKS
197. 27.07.2007, *Supraleitung - Geschichte einer spannenden Entdeckung*, Lehrertag, MPIPKS Dresden
198. 05.12.2007, *Das Rätsel Zeit aus physikalischer Sicht*, NOVALIS Forum Freiberg
199. 06.12.2007, *Das Rätsel Zeit aus physikalischer Sicht*, AGRICOLA Forum Chemnitz
200. 13.02.2008, *Das Rätsel Zeit aus physikalischer Sicht*, LEIBNIZ Forum Leipzig
201. 30.09.2008, *Das Rätsel Zeit aus physikalischer Sicht*, visiting teachers, FZ Dresden-Rossendorf
202. 15.12.2008, *Supraleitung - Geschichte einer spannenden Entdeckung*, Schülerdoktor, MPIPKS Dresden
203. 13.02.2009, *Simulation von Nanobauteilen*, Lehrertag, FZ Dresden-Rossendorf
204. 30.10.2010, *Das Quantenphänomen Supraleitung*, MIND-Studentenakademie 2010, Köln
205. 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, Heidel-  
berg:  
-*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

### 3.2 Poster at DPG spring meetings

**1991**

72. 12.3. - 14.3.: DPG spring meeting of plasma physics section in Kiel: *Heiße Elektronen in partiell ionisierten H-Plasmen*

**1992**

73. 23. - 25.3.: DPG spring meeting of plasma physics section in Hannover: *Impact ionization of nonideal plasmas in strong electric fields*

**1993**

74. 9. - 11.3.: DPG spring meeting of plasma physics section in Greifswald: *Nonlinear transport of plasmas in strong electric fields*

**1994**

75. 7.3.-11.3.: DPG spring meeting of plasma physics section Erlangen: *Plasma Instabilities and anisotropy-effects in nonequilibrium*
76. 21.3.-25.3.: DPG spring meeting of nuclear physics section in Munich: *In-medium relativistic kinetic theory and critical scattering*

**1995**

77. 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*
78. -*Stopping power and energy transfer in nonideal plasmas for inertial fusion*
79. 13.3.-17.3.: DPG spring meeting of nuclear physics section in Köln:  
-*The in-medium two-particle problem in high fields*

80. -*Deuteron formation in hot dense matter*
81. -*Quantum effects in heavy ion collision simulations*
82. -*Generalized quantum transport with memory effects and virial corrections in dense nuclear matter*

**1997**

83. 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
84. -*The contribution of density fluctuations to the damping of giant resonances*, K. Morawetz, M. DiToro, U. Fuhrmann

**1998**

85. 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
86. -*Nonlinear Debye-Onsager relaxation effect in plasma systems*, K. Morawetz, J. Ortner
87. 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
88. -*New collective mode due to collisional coupling in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke, M. DiToro
89. -*Medium dependent transport in spin-polarized nuclear matter*, K. Morawetz, L. Mornas
90. -*Damping of giant resonances in symmetric and asymmetric nuclear matter*, U. Fuhrmann, K. Morawetz, R. Walke
91. -*Shape fluctuations and chaotic scattering in finite nuclei*, M. Vogt, K. Morawetz, U. Fuhrmann, R. Walke

**1999**

92. 15.3.-19.3.: DPG spring meeting of plasma physics section Heidelberg: *Nonlinear Debye-Onsager-Relaxation-Effect in Plasma Systems*, K. Morawetz, J. Ortner
93. 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
94. -*Damping of giant dipole resonances in symmetric and asymmetric nuclear matter*, U. Fuhrmann, K. Morawetz, R. Walke, G. Röpke
95. -*Giant Octupole Resonance Simulations*, R. Walke, K. Morawetz
96. -*New collective mode due to collisional coupling in asymmetric nuclear matter*, K. Morawetz, U. Fuhrmann, R. Walke, M. DiToro
97. -*Chaotic scattering on surfaces and collisional damping of collective modes*, U. Fuhrmann, M. Vogt, K. Morawetz, P. Lipavsky, V. Spicka

**2001**

98. 19.3.-23.3.: DPG spring meeting of nuclear physics section Erlangen:  
-*Squeezing mode in nuclear collisions* K. Morawetz, P. Lipavský
99. -*Transport with three-particle interaction*, K. Morawetz
100. -*Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V.D. Toneev
101. 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
102. -*Nonlinear relaxation field in charged systems under high electric fields* K. Morawetz

**2002**

103. 11.3.-15.3.: DPG spring meeting of solid state physics section Regensburg:  
-*Conductivity in quasi two-dimensional systems*, K. Morawetz
104. -*Bifurcation in kinetic equation for interacting Fermi systems*, K. Morawetz
105. -*A relation between classical and quantum particle systems*, K. Morawetz

**2003**

106. 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
107. -*Bernoulli potential at a superconductor surface* P. Lipavský, K. Morawetz, J. Kolaček, E.H. Brandt

**2004**

108. 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
109. -*Exactly solvable model of three interacting particles in an external magnetic field*, E.P. Nakhmedov, K. Morawetz, M. Ameduri, A. Yurtsever, C. Radehaus
110. -*Metal-Insulator transition in quasi 2D systems*, K. Morawetz

**2005**

111. 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
112. -*Surface potential in superconductors*, P. Lipavský, K. Morawetz, J. Kolaček, J. Mares, E.H. Brandt, M. Schreiber
113. -*Quantum two-particle scattering on finite cavities*, K. Morawetz, M. Schreiber, B. Schmidt, A. Ficker, P. Lipavský
114. -*Bifurcation in kinetic equation for interacting Fermi systems*, K. Morawetz
115. -*Dynamical local fields for quasiparticles* K. Morawetz
116. -*Exactly solvable model of three interacting particles in an external magnetic field*, E. P. Nakhmedov, K. Morawetz, M. Ameduri, A. Yurtsever, C. Radehaus

117. -*Metal-Insulator transition in quasi 2D systems*, K. Morawetz
118. -*A relation between classical and quantum particle systems- Application to plasmas at short time scales*, K. Morawetz
119. -*A relation between classical and quantum particle systems*, K. Morawetz
120. -*Dynamical constraints and signals of phase transitions*, K. Morawetz
121. -*Anomalous radial expansion in central heavy-ion reactions*, K. Morawetz, M. Płoszajczak, V. D. Toneev
122. -*A multi-parameter Ising model for the adsorption of molecules on structured surfaces*, C. Olbrich, K. Morawetz, S. Gemming, R. Scholz, M. Schreiber, R. Ernrich, G. Seifert

### 2006

123. 27.3.-31.3.: DPG spring meeting Dresden:  
-*Bernoulli potential at superconductor surfaces*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber
124. -*Electric fields at superconductor surfaces*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber
125. -*Dynamical local field corrections*, K. Morawetz
126. -*Metal-Insulator transition in heterojunctions*, K. Morawetz, C. Olbrich, M. Schreiber
127. -*Formation of species diversity due to self-organized criticality*, K. Morawetz, N. Amecke, R. Radünz, M. Döring, M. Schreiber

### 2007

128. 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
129. -*Reduction of surface coverage of finite systems due to geometrical steps*, K. Morawetz, C. Olbrich, S. Gemming, M. Schreiber
130. -*Fluctuations due to the nonlocal character of collisions*, K. Morawetz
131. -*Frustrated Ising- and Heisenberg-type Spin Systems on a Hexagonal Lattice*, C. Olbrich, T. Kunze, S. Gemming, K. Morawetz, M. Schreiber

### 2008

132. 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
133. -*The concept of correlated density and its application*, K. Morawetz, P. Lipavský, J. Koláček, E.H. Brandt, M. Schreiber
134. -*Phase diagram for interacting Bose systems*, M. Maennel, K. Morawetz, M. Schreiber

### 2009

135. 23.3.-27.3.: DPG spring meeting Dresden:  
-*Bose condensation for attractive interaction?*, M. Männel, P. Lipavský, K. Morawetz, M. Schreiber

136. -*Surface deformation caused by the Abrikosov vortex lattice*, P. Lipavský, K. Morawetz, J. Kolacek, E. H. Brandt
137. -*Surface superconductivity and capacitance of superconductors under electric and magnetic fields*, K. Morawetz, P. Lipavský, J. Kolacek, E. H. Brandt
138. -*Current without external bias and diode effect in shuttling transport of nanoshafths*, K. Morawetz, S. Gemming, R. Luschtinetz, L. Eng, G. Seifert, A. Kenfack
139. -*Transport and noise in organic field effect devices*, K. Morawetz, S. Gemming, R. Luschtinetz, T. Kunze, P. Lipavsky, L. Eng, G. Seifert
140. -*Modelling the transport through organic layers on a ferroelectric substrate*, T. Kunze, S. Gemming, R. Luschtinetz, V. Pankoke, K. Morawetz

#### 2010

141. 22.3.-26.3.: DPG spring meeting Regensburg:  
-*Surface superconductivity controlled by electric field*, K. Morawetz, P. Lipavský, J. Kolaček
142. -*Modeling the morphogenesis of brine channels in sea ice*, B. Kutschan, K. Morawetz, S. Gemming
143. -*Multiple condensed phases in interacting Bose systems*, M. Maennel, K. Morawetz, P. Lipavský, M. Schreiber

#### 2011

144. 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
145. -*Discontinuity of capacitance at the onset of surface superconductivity controlled by electric fields*, K. Morawetz, P. Lipavský, J. Kolaček
146. -*Condensation of bound states and pairs in interacting Fermi gases*, M. Maennel, K. Morawetz, P. Lipavsky, M. Schreiber
147. -*Brine channel formation by phase separation in sea ice*, B. Kutschan, S. Thoms, K. Morawetz, S. Gemming



## **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