Publication list of Reinhold Oppermann

1. E. Nakhmedov, R. Oppermann
   Critical disorder effects in Josephson-coupled quasi 1D superconductors,
   Pis'ma v ZhETF, vol. 91, iss. 11, pp.639-645 (2010)

2. E. Nakhmedov, R. Oppermann
   Disorder-driven superconductor-normal metal phase transitions in quasi 1D organic conductors,

3. R. Oppermann
   Universality class of replica symmetry breaking (invited talk at workshop Random Matrices and Integrability:
   From Theory to Applications),
   Proceedings of the research workshop of the Israel Science Foundation, Yad Hashmona/Jerusalem (Israel) (2009)

4. R. Oppermann, M.J. Schmidt
   Formation of full replica symmetry breaking as a critical phenomenon: RSB-universality class of the
   SK spin glass versus KPZ growth, Proceedings of conf. Modeling and simulation of new materials, 10th

5. R. Oppermann, M.J. Schmidt
   Universality class of replica symmetry breaking and the low-temperature fixed-point
   order function of the Sherrington-Kirkpatrick model

6. M.J. Schmidt, R. Oppermann
   New technique for replica symmetry breaking with application to the SK-model at and near T=0

7. R. Oppermann, M.J. Schmidt
   Construction and purpose of an effective field theory of frustrated magnetic order
   SFB 410-report, Würzburg (Feb 2007)

   Bound hole states in a ferromagnetic (Ga,Mn)As environment
   Physical Review 76, 035204 (2007)

9. R. Oppermann, M.J. Schmidt, D. Sherrington
   Double criticality of the Sherrington-Kirkpatrick model at T=0

10. M.J. Schmidt, R. Oppermann
    The $\exp C$ -- method for almost saturated frustrated glassy order
    Würzburg preprint (2007)

11. R. Oppermann, M.J. Schmidt, D. Sherrington
    Mixed spectra and the two-critical-point structure of the T=0 SK-model
    cond-mat/0608581

12. R. Oppermann, D. Sherrington
    Scaling and Renormalization Group in Replica Symmetry Breaking space:
    evidence for a simple analytical solution of the Sherrington-Kirkpatrick model
    Physical Review Letters 95, 197203 (2005)
13. R. Oppermann, D. Sherrington, M. Kiselev  
Modulated replica symmetry breaking schemes for antiferromagnetic spin glasses  

14. M. Bechmann, R. Oppermann  
Dynamical solutions of a Quantum Heisenberg spin glass model  

15. M. Bechmann, R. Oppermann  
Dynamical CPA-approach to an itinerant fermionic spin glass model  

16. R. Oppermann, D. Sherrington  
Fermionic Sherrington-Kirkpatrick models with Hubbard interaction:  
Magnetism and electronic structure,  

17. M. Kiselev, K. Kikoin, R. Oppermann,  
Ginzburg-Landau functional for nearly antiferromagnetic perfect and disordered Kondo lattices,  

18. M. Kiselev, R. Oppermann  
Screening effects in Kondo lattices with quenched disorder,  

19. E. Nakhmedov, M. Kumru, R. Oppermann  
PRL85-reply  
Physical Review Letters 87, 239704 (2001)

Semi-fermionic representation of SU(N)-generators  

21. M. Kiselev, R. Oppermann, D. Sherrington:  
Competing phases in a dilute magnetic semiconductor layer model with magnetic polaron formation  
Festschrift zum 60. Geburtstag von Franz Wegner Heidelberg (Juni 2000)

22. M. Kiselev, R. Oppermann  
Schwinger-Keldysh semionic approach for quantum spin systems  
cond-mat/0008060  

23. H. Feldmann, R. Oppermann:  
The fermionic Ising spin glass and the Ghatak-Sherrington model  

24. M. Kiselev, R. Oppermann  
Spin glass transition in Kondo lattices with quenched disorder  

25. H. Feldmann, R. Oppermann:  
Selforganized 3-band structure of the doped fermionic Ising spin glass  

26. M. Kiselev, R. Oppermann:  
Effective bosonic field theory for Kondo lattice models: magnetic instability and effects of disorder  
Würzburg-preprint 7/1999

27. E. Nakhmedov, H. Feldmann, R. Oppermann, M. Kumru:  
Effects of substitutional impurities on the electronic density of states and conductivity of crystals with half filled band  
28. **H. Feldmann, E. Nakhmedov, R. Oppermann:**
   Distribution function of the local density of states of a one-channel weakly disordered ring in an external magnetic field

29. **E. Nakhmedov, M. Kumru, R. Oppermann:**
   Density of states of disordered two-dimensional crystals with half-filled band

30. **E. Nakhmedov, H. Feldmann, and R. Oppermann:**
    Aharonov-Bohm effect in one-channel weakly disordered rings

31. **R. Oppermann and H. Feldmann:**
    Pseudogaps, charge band, and superconductivity in the Parisi solution of fermionic spin glasses at arbitrary filling
    Proceedings of the Int. Conf. on Electronic Crystals, ECRYS-99, Nice/La Colle sur Loup, June 1999

32. **H. Feldmann and R. Oppermann:**
    Random magnetic interactions and spin glass order competing with superconductivity: Interference of the Quantum Parisi Phase
    cond-mat/9812008,

33. **B. Rosenow and R. Oppermann:**
    Metal insulator transitions in randomly interacting systems
    Univ. Köln--preprint, September 1998

34. **H. Feldmann and R. Oppermann:**
    Competition between spin glass order and strong coupling superconductivity in a single-species fermion model
    cond-mat/9809001

35. **M. Rehker and R. Oppermann:**
    Fermionic TAP equations,
    cond-mat/9808239 and

36. **R. Oppermann and B. Rosenow:**
    Studies of the phase diagram of randomly interacting fermionic systems,
    cond–mat/9803249

37. **R. Oppermann and B. Rosenow:**
    Parisi - Symmetry of the Many - Body Quantum Theory of randomly interacting fermionic systems,
    cond–mat/9803239

38. **R. Oppermann and B. Rosenow:**
    Low energy excitations of fermionic spin glasses and replica–symmetry breaking,
    Europhysics Letters 41, 525 (1998)

39. **Jun Li and R. Oppermann:**
    Novel spin–wave dispersion in the intermediately–coupled Hubbard model at half–filling,
    Würzburg preprint (1998)

40. **R. Oppermann and B. Rosenow:**
    Magnetic Gaps related to Spin Glass Order in Fermionic Systems,
    SFB410 preprint,
    cond-mat/9704047,


54. R. Oppermann and J. Stein:  
A spin-independent Popov–Fedotov trick and a new loop expansion 
for the strong coupling negative U Hubbard model,  

55. V.E. Kravtsov and R. Oppermann:  
Nonlinear $\sigma$–model for localization in superconductors: role of order parameter phase fluctuations,  

56. S. Schohe, R. Oppermann, and W. Hanke:  
Matrix field theory for disordered local pairing superconductors with two glass order parameters and 
spin–flip pairbreaking processes,  

57. R. Oppermann:  
Anderson localization problems in gapless superconducting phases, Proceedings des workshops Mesoscopic fluctuations and Anderson localization, Braunschweig, January 1990 and  
Physica A 167, 301-312 (1990)

58. R. Oppermann:  
Functional integration method for the Hubbard model with large negative U and other local pairing 
models,  

59. R. Oppermann:  
Properties of microscopic superconducting glasses,  
Proceedings of the International Conference on HTSC – M²S (Interlaken 1988), and  

60. R. Oppermann:  
The electronic specific heat of superconducting glasses,  
CEN Saclay report (1987) and  
Solid State Communications 65, 1391 (1988)

61. R. Oppermann:  
Pseudogap in the electronic density of states of superconducting glasses,  
Zeitschrift für Physik B70, 49 (1988)

62. R. Oppermann:  
Solution of selfconsistent equations for superconducting glasses: a new universal ratio, critical expo- 
nent $\beta = 1$, and behaviour in magnetic fields,  
Zeitschrift für Physik B70, 43 (1988)

63. R. Oppermann:  
On a quantum field theory of superconducting glasses and 
other impure superconducting phases,  

64. R. Oppermann:  
Nonlinear sigma model for localization in superconductors,  
MIT–report (1986) and  

65. R. Oppermann:  
Symmetries of disorder ensembles with superconducting order,  
Roma 1 La Sapienza report (1986) and  

66. R. Oppermann:  
Interacting disordered systems with more than one order parameter,  
Proceedings of the International Seminar on Localization 
in Disordered Systems, Bad Schandau (1986)
67. R. Oppermann:
  Inhomogeneity correlations (I) in dirty superconductors,

68. R. Oppermann:
  Field theoretic formulation and soft modes of dirty superconductors,
  Zeitschrift für Physik B61, 89 (1985)

69. R. Oppermann:
  N orbital models, SFB 123 report August 1984, and in
  Proceedings of the LITPIM conference, Braunschweig 1984

70. R. Oppermann:
  Magnetic field induced crossover in weakly localized regimes and
  scaling of the conductivity, SFB 123 report (1984) and
  Journal de Physique Lettres 45, L-1161-5 (1984)

71. R. Oppermann and K. Ziegler:
  Localization by diffusons,
  ITP Santa Barbara report (refereed), 2/1984

72. R. Oppermann:
  Superconductivity and localization in disordered systems:
  a local gauge invariant approach,
  Journal of the Physical Society of Japan 52, 3554 (1983)

73. R. Oppermann:
  The Mott Anderson metal insulator transition in n orbital models,

74. R. Oppermann:
  Anomalous Stoner enhancements in amorphous systems,
  Solid State Communications 44, 1297 (1982)

75. R. Oppermann:
  Disordered electronic models with electron scattering from ionic spin degrees of freedom,
  Progress of Theoretical Physics 68, 1038 (1982)

76. R. Oppermann:
  Perturbative Einzelteilchen– und Vielteilchentheoretische Beschreibungen von Metall Isolator
  Übergängen in ungeordneten Systemen,
  Habilitationsschrift, Heidelberg, Oktober 1981

77. R. Oppermann:
  On effects of electron-electron interactions in disordered electronic systems,
  Conference Proceedings Rom, Mai 1981, Lecture Notes in Physics (Springer Verlag)

78. R. Oppermann:
  Critical localization behaviour of spindependent ensembles with broken time reversal invariance,

79. R. Oppermann and K. Jüngling:
  Determination of universality classes for spindependent ensembles with
  time reversal invariance,

80. K. Jüngling and R. Oppermann:
  Effects of spin interactions in disordered electronic systems:
  loop expansions and exact relations among local gauge invariant models,
  Zeitschrift für Physik B38, 93 (1980)
81. *R. Oppermann and K. Jüngling:*
*Random electronic models with spindependent hopping,*

82. *R. Oppermann and F. Wegner:*
*Disordered systems with n orbitals per site: 1/n expansion,*
Zeitschrift für Physik B34, 327 (1979)

83. *R. Oppermann:*
*A microscopic calculation of dynamic critical exponents for displacive phase transitions,*
Zeitschrift für Physik B27, 93 (1977)

84. *R. Oppermann:*
*Microscopic 1/n expansion for critical dynamics and hydrodynamics near displacive phase transitions,*
Journal of Physics C10, 2547 (1977)

85. *R. Oppermann:*
*On 1/n expansions for the dynamics of structural phase transitions,*

86. *R. Oppermann:*
*Feldtheoretische Untersuchungen zur Statik kritischer Phänomene,*
Dissertation, Frankfurt am Main, Mai 1975

87. *R. Oppermann and H. Thomas:*
*Critical behaviour at the displacive limit of structural phase transitions,*
Zeitschrift für Physik B22, 387 (1975)

88. *R. Oppermann:*
*Scaling functions of susceptibilities to 0(1/n) for n–vector models with axial anisotropy,*
Zeitschrift für Physik B20, 405 (1975)

89. *R. Oppermann:*
*Wilson expansions for an extended Potts model,*
Journal of Physics A8, L43 (1975)

90. *R. Oppermann:*
*Change of the order of a phase transition induced by axial anisotropy,*

91. *R. Oppermann:*
*Cubic against isotropic critical behaviour for long–range interactions,*

92. *R. Oppermann:*
*Crossover exponent of the anisotropic n–vector model,*

93. *R. Oppermann:*
*Application of the Abrikosov pseudofermion technique to a homogeneous spin system*
Zeitschrift für Physik 259, 285 (1973)