

Annual Accomplishments

Yasutami Takada

1976

- 001-1976** 高田康民、“反転層における超伝導の新しい機構” 物性研究 **26** (1976) C74-C76
- 002-1976** 高田康民、“MOS 反転層におけるプラズマ振動と超伝導の可能性” 修士論文(東京大学) 1976 年 1 月提出 (審査員: 植村・伊豆山・田沼)、同年 3 月学位取得 (含: 超伝導揺らぎの一般理論レビュー)
- 003-1976** Y. Takada and Y. Uemura, “Acoustic Plasmon and Possibility of Superconductivity in MOS Structures” in *Proc. 13th Int. Conf. on Phys. Semiconductors*, Rome (1976) 754-757

1977

- 004-1977** Y. Takada and Y. Uemura, “Subband Structures of n -Channel Inversion Layers on III-V Compounds –A Possibility of the Gate Controlled Gunn Effect–”, *J. Phys. Soc. Jpn.* **43** (1977) 139-150.
- 005-1977** Y. Takada, “Acoustic Plasmons in MOS Inversion Layers”, *J. Phys. Soc. Jpn.* **43** (1977) 1627-1636.

1978

- 006-1978** Y. Takada and T. Ando, “Stress Effects on Electronic Properties of Silicon Inversion Layers”, *J. Phys. Soc. Jpn.* **44** (1978) 905-913.
- 007-1978** Y. Takada, “Plasmon Mechanism of Superconductivity in Two- and Three-Dimensional Electron Systems”, *J. Phys. Soc. Jpn.* **45** (1978) 786-794.
- 008-1978** 高田康民、“半導体界面の超伝導の可能性” 日本物理学会 7 分科合同シンポジウム招待講演

1979

- 009-1979** Y. Takada, “Effect of Screening and Neutral Impurity on Mobility in Silicon Inversion Layers under Uniaxial Stress”, *J. Phys. Soc. Jpn.* **46** (1979) 114-122.
- 010-1979** Y. Takada, “Mechanisms of Superconductivity in Degenerate Semiconductors”, Ph. D. Thesis (University of Tokyo) Submitted in December 1978 and Ph. D awarded in March 1979 (審査員: 伊豆山・中嶋・一丸・小林・田沼・川路)

1980

- 011-1980** Y. Takada, “Theory of Superconductivity in Polar Semiconductors and its Application to n -Type Semiconducting SrTiO_3 ”, *J. Phys. Soc. Jpn.* **49** (1980) 1267-1275.
- 012-1980** Y. Takada, “First-Principles Calculation of Superconducting Transition Temperature of MOS Inversion Layers”, *J. Phys. Soc. Jpn.* **49** (1980) 1713-1721.
- 013-1980** Y. Takada, K. Arai, N. Uchimura, and Y. Uemura, “Theory of the Electronic Properties of n -Channel Inversion Layers on Narrow-Gap Semiconductors. I. Subband Structures of InSb”, *J. Phys. Soc. Jpn.* **49** (1980) 1851-1858.
- 014-1980** Y. Takada, “Theory of Cyclotron Resonance in Si (100) Inversion Layers under [001] Uniaxial Stress”, *Surf. Sci.* **98** (1980) 442-450.
- 015-1980** Y. Takada, “Study on the Effect of the Coulomb Interaction on Superconductivity and its Application to n -Type Semiconducting SrTiO_3 ”, *J. Phys. Soc. Jpn.* **49** Suppl. A (1980) 97-100.
- 016-1980** Y. Takada, K. Arai, N. Uchimura, and Y. Uemura, “Theory of the Electronic Properties of n -Channel Inversion Layers on Narrow-Gap Semiconductors”, *J. Phys. Soc. Jpn.* **49** Suppl. A (1980) 947-950.

1981

- 017-1981** Y. Takada, “Theory of the Electronic Properties of n -Channel Inversion Layers on Narrow-Gap Semiconductors. II. Inter-Subband Optical Absorption on InSb”, *J. Phys. Soc. Jpn.* **50** (1981) 1998-2005.
- 018-1981** 高田康民、“Mechanism of Superconductivity in Alkali-Graphite Intercalation Compounds”, 日本物理学会講演 (3 月 21 日)

1982

- 019-1982** Y. Takada, K. Arai, and Y. Uemura, “2D-Subbands in III-V and Narrow-Gap Semiconductors” in *Physics of Narrow-Gap Semiconductors* (invited talk) (Lecture Notes in Physics **152**) (edited by E. Gornik, H. Heinrich, and L. Palmetshofer): Springer (1982) 101-112.
- 020-1982** Y. Takada, “Mechanism of Superconductivity in Graphite-Alkali Metal Intercalation Compounds”, *J. Phys. Soc. Jpn.* **51** (1982) 63-72.

021-1982 Y. Takada, “Large Bipolaron in One- and Two-Dimensional Systems”, Phys. Rev. B **26** (1982) 1223-1232.

1983

022-1983 Y. Takada, “New Variational Approach to the Many-Body Problem and Application to the High-Density Electron Gas”, Phys. Rev. A **28** (1983) 2417-2432.

023-1983 Y. Takada, “New Variational Approach to the Many-Body Problem” in *Proc. 6th Pan-American Workshop on Condensed Matter Theories* (Feenberg Memorial Symposium), edited by J. M. C. Chen, J. W. Clark, and P. Suntharothok-Priesmeyer (1983) 104-107.

1984

024-1984 Y. Takada, “Method of Effective Potential Expansion for the Many-Body Problem. Two-Dimensional Electron Gas in Two-Body Approximation”, Phys. Rev. B **30** (1984) 3882-3895.

025-1984 Y. Takada, “Application of Effective-Potential-Expansion Method to Polaron Problem: Effect of Two-Phonon Correlation on the Ground-State Energy”, unpublished; ITP, UC Santa Barbara preprint.

1985

026-1985 Y. Takada and W. Kohn, “Interaction Potential for Helium Atom on Metal Surfaces”, Phys. Rev. Lett. **54** (1985) 470-472.

027-1985 Y. Takada and W. Kohn, “Takada and Kohn Respond to Tersoff”, Phys. Rev. Lett. **55** (1985) 141.

028-1985 高田康民, “金属表面と希ガス原子の相互作用”, 物性研究所談話会、9月24日(1985).

029-1985 高田康民, “超伝導転移温度の理論”, 若手所員会講演、10月23日(1985).

030-1985 高田康民, “He原子と金属表面の相互作用”, 東京大学理学部物性コロキウム、12月19日(1985).

1986

031-1986 高田康民, “He原子と金属表面との相互作用” 固体物理 **21** (1986) 336-344.

032-1986 高田康民, “有効ポテンシャル展開法による電子ガス系の研究”, 物性研理論セミナー、2月28日(1986).

033-1986 高田康民, “波動方程式の準古典近似解について”, 物性研理論セミナー、7月10日(1986).

034-1986 高田康民, “有効ポテンシャル展開(EPX)法による電子ガス系の研究”, 東大教養学部物性セミナー、7月18日(1986).

035-1986 高田康民, “ガスー表面非弾性散乱問題の変分法による研究”, 物性研理論セミナー、9月12日(1986).

036-1986 高田康民, “有効ポテンシャル展開法による電子ガスの相関の研究”, 日本物理学会講演、関学、9月27日(1986).

037-1986 高田康民, “有効ポテンシャル展開法による電子ガスの相関の研究”, 高密度プラズマ物性研究会講演、山上市会館、12月2日(1986).

1987

038-1987 Y. Takada, “Electron Correlations in the Effective-Potential Expansion Method”, Phys. Rev. B **35** (1987) 6923-6932.

039-1987 Y. Takada, “Variational Theory of Superconductivity with Application to the Electron Gas”, Physica **148B** (1987) 374-377.

040-1987 高田康民・長谷川泰正・福山秀敏, “会議だよりーワークショップ「超伝導の新しい機構」” 固体物理 **22** (1987) 823-828.

041-1987 高田康民, “高温超伝導、フォノンと無関係? (アニル・クラナ)” パリティ **2** (1987) 30-37.

042-1987 高田康民, “電子ガスの超伝導” 固体物理 **22** (1987) 949-957.

043-1987 Y. Takada, “Effects of Coulomb Interaction on Superconductivity” in *Novel Mechanisms of Superconductivity* (edited by S. A. Wolf and V. Z. Kresin): Plenum (1987) 435-444.

044-1987 高田康民, “多体問題の基底状態エネルギーに対する上限値の新しい計算法”, 日本物理学会講演、名工大、3月27日(1987).

045-1987 Y. Takada, “Effects of Coulomb Interaction on Superconductivity”, Invited Talk at Berkley, 6月23日(1987).

046-1987 高田康民, “電子ガスの超伝導”, 物性研理論セミナー、7月10日(1987).

047-1987 高田康民, “電子ガスの超伝導”, 千葉大理学部物性理論セミナー、7月21日(1987).

1988

048-1988 Y. Takada, “Variational Theory of Superconductivity and Application to the Low-Density Electron Gas”, Phys. Rev. B **37** (1988) 155-178.

049-1988 Y. Takada and W. Kohn, “Scattering of Evanescent Waves with Application to Atom-Surface Interactions”, Phys. Rev. B **37** (1988) 826-837.

- 050-1988** Y. Takada, “Possibility of High- T_c Superconductivity in Dense Magnetic Polarons”, Jpn. J. Appl. Phys. Series 1. Superconducting Materials (1988) 240-241.
- 051-1988** Y. Takada, “Time-Independent Variational Approach to Inelastic Collisions of a Particle with a Harmonic Oscillator”, Phys. Rev. A **38** (1988) 98-106.
- 052-1988** Y. Takada, “High- T_c Superconductivity in Dense Magnetic Polarons: A Possible Mechanism in Copper-Oxide Superconductors” in *Proc. Materials Research Society Spring Meeting* (1988) 196.
- 053-1988** 高田康民, “高密度磁気ポーロン系での高温超伝導の可能性”, 日本物理学会講演、4月3日(1988).
- 054-1988** 高田康民, “超伝導機構：非フォノン機構”, 高温超伝導物性研究所内シンポジウム、4月14日(1988).
- 055-1988** 高田康民, “新エキシトン機構による高温超伝導”, 日本物理学会講演、広島、10月3日(1988).
- 056-1988** 高田康民, “有効ポテンシャル展開法の最近の発展”, 物性研理論セミナー、10月14日(1988).
- 057-1988** 高田康民, “新エキシトン機構による高温超伝導”, 筑波大学理学部物性理論コロキウム、11月2日(1988).

1989

- 058-1989** Y. Takada, “Superconductivity Originating from a Repulsive Potential: Proposal of a New Exciton Mechanism of High- T_c Superconductivity in the Dilute Electron Gas”, Phys. Rev. B **39** (1989) 11575-11586.
- 059-1989** Y. Takada, “Superconductivity Originating From A Repulsive Potential”, Theory Seminar, 9月22日(1989).
- 060-1989** Y. Takada, “Variational Theory of Electron Liquid”, Invited Talk at Strongly-Correlated Electron Plasma, Lake Yamanaka, September 1989.
- 061-1989** 高田康民, “超伝導体の物理”, 日立製作所研修会講演、10月26日(1989).

1990

- 062-1990** Y. Takada and M. Kohmoto, “New Pairing State in an Attractively-Coupled Double-Chain Organic Material: Possibility of an Exciton Mechanism of Superconductivity in Spatially Separated Systems”, Phys. Rev. B **41** (1990) 8872-8885.
- 063-1990** M. Kohmoto and Y. Takada, “Superconductivity from an Insulator”, J. Phys. Soc. Jpn. **59** (1990) 1541-1544.
- 064-1990** Y. Takada and T. Kita, “Effective-Potential Expansion Method for the Many-Body Problem at Finite Temperatures. I. Basic Formalism”, Phys. Rev. A **42** (1990) 3242-3250.
- 065-1990** T. Kita and Y. Takada, “Effective-Potential Expansion Method for the Many-Body Problem at Finite Temperatures. II. Application to a One-Dimensional Electron System with a Repulsive Delta-Function Interaction”, Phys. Rev. A **42** (1990) 3251-3258.
- 066-1990** Y. Takada, “Variational Theory of Electron Liquid” in *Strongly Coupled Plasma Physics* (edited by S. Ichimaru): Elsevir (1990) 357-368.
- 067-1990** Y. Takada and M. Kohmoto, “Novel Superconductivity from an Insulator” in *Springer Proc. in Physics 51 (The Physics and Chemistry of Organic Superconductors)*, edited by G. Saito and S. Kagoshima (1990) 434-437.
- 068-1990** 高田康民, “電子系の変分計算”, 東大理物理鈴木研コロキウム講演、5月24日(1990).
- 069-1990** 高田康民, “研究室だより”, 「物性研だより」原稿、12月13日(1990).

1991

- 070-1991** Y. Takada, “Role of the Valley Degeneracy in the Plasmon Mechanism of Superconductivity and its Implication to the Alkali-Metal-Doped Fullerene A_xC_{60} ”, Physica C **185-189** (1991) 419-420.
- 071-1991** Y. Takada, “Electron Correlations in a Multivalley Electron Gas and Fermion-Boson Conversion”, Phys. Rev. B **43** (1991) 5962-5978.
- 072-1991** Y. Takada, “Quasi-Particle Properties of the Electron Gas at Metallic Densities in the Effective-Potential Expansion Method”, Phys. Rev. B **43** (1991) 5979-5991.
- 073-1991** Y. Takada, “Meissner Effect and Oscillatory Penetration of a Magnetic Field from the Pairing of Valence and Conduction Electrons”, Phys. Rev. B **43** (1991) 6124-6127.
- 074-1991** Y. Takada and T. Kita, “New Self-Consistency Relation between the Correlation Energy and the Momentum Distribution Function with Application to the One-Dimensional Hubbard Model”, J. Phys. Soc. Jpn. **60** (1991) 25-28.
- 075-1991** H. Yasuhara and Y. Takada, “Analysis of Self-Energy and Proposal of an Improved Exchange and Correlation Potential for Band Calculation”, Phys. Rev. B **43** (1991) 7200-7211.
- 076-1991** Y. Takada and H. Yasuhara, “Momentum Distribution Function of the Electron Gas at Metallic Densities”, Phys. Rev. B **44** (1991) 7879-7887.
- 077-1991** K. Kuroki, H. Aoki, and Y. Takada, “Superconductivity in a Two-Band Hubbard System with Interband Attraction”, Physica C **185-189** (1991) 1453-1454.
- 078-1991** Y. Takada, “Superconductivity in the Multivalley Electron Gas as a Model for the Alkali-Metal-Doped Fullerene A_3C_{60} ”, unpublished; Technical Report of ISSP Ser. A 2462.
- 079-1991** 高田康民, “Theoretical and/or Experimental Proof of the Plasmon Mechanism of Superconductivity in a Multivalley Electron Gas”, 物性研理論セミナー、6月21日(1991).

- 080-1991** 高田康民、“多谷系での超伝導理論と A_xC_{60} への応用”, 日本物理学会招待講演、札幌、9月29日(1991).
081-1991 高田康民、“高温超伝導にフォノンはいらない!?—動的電子間相互作用における長距離クーロン力の重要性—”, 都立大物性セミナー、12月5日(1991).
082-1991 高田康民、“高温超伝導にフォノンはいらない!?—動的電子間相互作用における長距離クーロン力の重要性—”, 東大理学部物性コロキウム、12月19日(1991).
083-1991 高田康民、“高温超伝導における長距離クーロン力の重要性”, 姫路工大研究会招待講演、12月25日(1991).

1992

- 084-1992** Y. Takada, “Plasmon Mechanism of Superconductivity in the Multivalley Electron Gas”, J. Phys. Soc. Jpn. **61** (1992) 238-253.
085-1992 K. Kuroki, H. Aoki, and Y. Takada, “Superconductivity Due to Interband Attraction: Competition between Diagonal and Off-Diagonal Long-Range Orders”, J. Phys. Soc. Jpn. **61** (1992) 1161-1164.
086-1992 Y. Takada, “Insignificance of Vertex Corrections in the Plasmon Mechanism of Superconductivity at Low Electron Concentration: Migdal's Theorem in the Antiadiabatic Region”, J. Phys. Soc. Jpn. **61** (1992) 3849-3852.
087-1992 Y. Takada, “Spin-Charge Crossover in the Negatively Pressured Alkali Metals”, J. Phys. Soc. Jpn. **61** (1992) 4275-4278.
088-1992 高田康民、“高温超伝導にフォノンはいらない!?: プラズモンの重要性” 日本物理学会誌 **47** (1992) 388-391.
089-1992 高田康民、“物理学の奨め” 洲本高校95周年記念講演会5月9日(1992).
090-1992 高田康民、“クーロン斥力起源の超伝導—超伝導機構の第一原理からの考察—”, 東北大学金研物性セミナー、5月26日(1992).
091-1992 高田康民、“強結合超伝導理論—超伝導機構の第一原理からの考察—”, 千葉大理学部物性理論セミナー、6月23日(1992).
092-1992 高田康民、“高温超伝導にフォノンはいらない—長距離クーロン相互作用の動的成分の重要性”, 新潟大理学部物性セミナー、7月20日(1992).
093-1992 高田康民、“アルカリ金属の電荷及びスピン応答における多体効果とバンド効果の競合”, 物性研理論セミナー、9月4日(1992).
094-1992 高田康民、“圧縮率及びスピン帯磁率における多体効果とバンド効果の競合—アルカリ金属の例—”, 日本物理学会講演、9月26日(1992).
095-1992 高田康民、“エリアシュバーク方程式”, 科研費研究会、なかがわ荘、10月27日(1992).

1993

- 096-1993** Y. Takada, “Consideration of the Mechanism of Superconductivity in Fullerenes: Beyond Migdal's Theorem and Dynamic Coulomb Effect”, J. Phys. Chem. Solids **54** (1993) 1779-1788.
097-1993 Y. Takada, “Compressibility and Spin Susceptibility of the Alkali Metals in the Effective-Potential Expansion Method: Competition between Many-Body and Band Effects in Charge and Spin Responses”, Phys. Rev. B **47** (1993) 3482-3494.
098-1993 Y. Takada, “*s*- and *p*-Wave Pairings in the Dilute Electron Gas: Superconductivity Mediated by the Coulomb Hole in the Vicinity of the Wigner-Crystal Phase”, Phys. Rev. B **47** (1993) 5202-5211.
099-1993 高田康民、“理論”「小特集—超伝導と高圧力—」日本高圧力学会誌 **2** (1993) 180-186.
100-1993 高田康民、“超伝導理論”「化学ハンドブック」(向山光昭・鈴木周一編)、朝倉書店(1993)73-75.
101-1993 Y. Takada, “Green's-Function Approach to the Polaron Problem: Migdal's Approximation and Beyond”, unpublished; Technical Report of ISSP Ser. A 2732.
102-1993 高田康民、“ウィグナー結晶状態近傍の超伝導”野口英世記念会館、1月22日(1993).
103-1993 高田康民、“バーテックス補正をいれた強結合超伝導理論とその A_3C_{60} への応用”物理学会、10月13日(1993).
104-1993 高田康民、“Strong-Coupling Theory for Superconductivity with Vertex Corrections”, 科研費重点、11月12日(1993).
105-1993 高田康民、“フラーレンの研究の現状”, 所員昼食会講演、9月16日(1993).

1994

- 106-1994** H. Yamagami, Y. Takada, H. Yasuhara, and A. Hasegawa, “Improvement on the Correlated Hartree-Fock Method and Application to Atoms”, Phys. Rev. A **49** (1994) 2354-2362.
107-1994 K. Takahashi and Y. Takada, “Charge- and Spin-Density-Wave Instabilities in High Magnetic Fields in Graphite”, Physica B **201** (1994) 384-386.
108-1994 高田康民、“フラーレンの超伝導”パリティ **9** (1994) 14-21.
109-1994 高田康民、“フラーレンの超伝導”, 科研費研究会、1月11日(1994).
110-1994 Y. Takada, “Strong-Coupling Theory for Superconductivity with Vertex Corrections”, Condensed Matter Theory 18, Valencia, Invited Talk、6月(1994).

111-1994 高田康民, “ C_{60} の超伝導: エリアシュバーク理論を超えて”, 第7回佐々木シンポジウム招待講演、12月13日(1994).

1995

112-1995 Y. Takada, “Exact Self-Energy of the Many-Body Problem from Conserving Approximations”, Phys. Rev. B **52** (1995) 12708-12719.

113-1995 Y. Takada and T. Higuchi, “Vertex Function for the Coupling of an Electron with Intramolecular Phonons: Exact Results in the Antiadiabatic Limit”, Phys. Rev. B **52** (1995) 12720-12735.

114-1995 Y. Takada and H. Yamagami, “Coulomb Hole in a He Atom”, J. Phys. Soc. Jpn. **64** (1995) 3606-3609.

115-1995 Y. Takada, “Electron-Phonon Locking and Superconductivity”, J. of Superconductivity **8** (1995) 429-432.

116-1995 Y. Takada, “Strong-Coupling Theory for Superconductivity with Vertex Corrections” in *Condensed Matter Theories* **10** (edited by M. Casas, M. de Llano, J. Navarro, and A. Polls), Nova (1995) 255-268.

117-1995 高田康民, “物理吸着の電子論” 「表面科学シリーズ」第2巻第2分冊、丸善 (1995) 26-41.

118-1995 Y. Takada, “Competition between Many-Body and Band Effects on Charge and Spin Responses in Alkali Metal” in *Proceedings on Many-Electron Theories and Fundamental Processes of Electron-Beam and X-Ray Nonelastic Scatterings* (The 36th Kanazawa Memorial Seminars), edited by Y. Ohmura and R. Ikeda, (1995) 11-17.

119-1995 高田康民, “炭素素材物質における多電子効果と相転移” 「平成5~6年度科学研究費補助金(一般研究C)」研究成果報告書、1995年3月.

120-1995 Y. Takada, “Competition between Many-Body and Band Effects in Charge and Spin Responses in the Alkali Metals”, Purdue, Oct. 23 (1995).

121-1995 Y. Takada, “Electron-Phonon Locking and Superconductivity”, Miami Workshop, Invited Talk, 1月6日 (1995).

122-1995 高田康民, “フォノンによる電子の動的閉じ込めと超伝導”, 物性研理論セミナー、1月20日(1995).

123-1995 高田康民, “フグリーン関数法による厳密解への径: Baym-Kadanoff法を超えて”, 日本物理学会講演、神奈川大学3月30日(1995).

124-1995 Y. Takada, “Superconductivity in Fullerenes: Interesting Isotope Effect”, Purdue, Oct. 20 (1995).

125-1995 Y. Takada, “Superconductivity in Alkali-Metal-Doped Fullerenes: Explanation of the Anomalous Isotope Effect”, Invited Talk, Kyoto, November 17 (1995).

1996

126-1996 T. Hotta and Y. Takada, “Dynamical Localization-Delocalization Transition in the Infinite-Dimensional Hubbard-Holstein Model”, Phys. Rev. Lett. **76** (1996) 3180-3183.

127-1996 Y. Takada, “Superconductivity in the Half-Filled Hubbard-Holstein Model in the Antiadiabatic Region”, J. Phys. Soc. Jpn. **65** (1996) 1544-1547.

128-1996 T. Hotta and Y. Takada, “Hopping-Integral Expansion from the Limit of Zero Bandwidth in Infinite-Dimensional Hubbard-Holstein Model”, J. Phys. Soc. Jpn. **65** (1996) 2922-2935.

129-1996 Y. Takada, “Explanation of the Anomalous Isotope Effect in Superconducting Alkali-Metal-Doped Fullerenes”, J. Phys. Soc. Jpn. **65** (1996) 3134-3137.

130-1996 T. Hotta and Y. Takada, “Dynamical Localization and Electron Correlation”, Czech. J. Phys. **46** Suppl. S5 (1996) 2625-2626.

131-1996 高田康民, “書評: Superconductivity: From Basic Physics to the Latest Developments (edited by P. N. Butcher and Yu Lu)” 日本物理学会誌 **51** (1996) 672.

132-1996 高田康民, 三菱財団平成8年度自然科学研究助成受賞.

133-1996 高田康民, “フラーレンでの超伝導: 電子格子相互作用と電子相関の競合の狭間で”, 現代物理学入門、本郷、4月22日(1996).

134-1996 高田康民, “Mechanism of Superconductivity in Narrow-Band Electronic Systems: Inverse Isotope Effect”, 科研費研究会、東工大、1月22日(1996).

135-1996 Y. Takada, “Complete Explanation of the Isotope Effect in Superconducting Rb_3C_{60} ”, APS March Meeting, St. Louis, 3月19日(1996).

136-1996 高田康民, “Superconductivity in the Hubbard-Holstein Model: Inverse Isotope Effect”, 日本物理学会講演、4月1日(1996).

137-1996 高田康民, “一物質の示す多彩な現象—多電子問題入門”, 物性研物性科学入門講座講義、6月26日(1996).

138-1996 Y. Takada, “Superconductivity in half-filled Hubbard-Holstein model in the antiadiabatic region: Implications for fullerenes”, Gordon Conference, Invited talk, Plymouth, 7月21日 (1996).

139-1996 K. Kuroki, H. Aoki, and Y. Takada, “Detection of Pairing Correlation in 2D Hubbard Model”, Gordon Conference, Plymouth, 7月22日(1996).

1997

- 140-1997** T. Hotta and Y. Takada, “Unconventional Superconductivity in the Hubbard-Holstein Model”, *Physica B* **230-232** (1997) 1037-1040.
- 141-1997** K. Kuroki, H. Aoki, T. Hotta, and Y. Takada, “Detection of Pairing Correlation in the Two-Dimensional Hubbard Model”, *Phys. Rev. B* **55** (1997) 2764-2767.
- 142-1997** T. Hotta and Y. Takada, “Effect of Electron Correlation on Phonons in a Strongly-Coupled Electron-Phonon System”, *Phys. Rev. B* **56** (1997) 13916-13926.
- 143-1997** 遠藤孝徳・堀内雅史・高田康民・安原洋, “相関エネルギーの r_s 展開とその金属密度領域への外挿公式” 物性研究 **67** (1997) 708-726.
- 144-1997** 高田康民, “有機導体における高温超伝導発現機構の基礎理論研究” 三菱財団事業報告書 **28** (1997) 207-209.
- 145-1997** Y. Takada, “Route to the Exact Self-Energy of the Many-Body Problem from the Baym-Kadanoff’s Conserving Approximation”, APS March Meeting, Kansas City, March 20 (1997).
- 146-1997** Y. Takada, “Electron Correlation in the Inhomogeneous Electron Gas”, ICSCCS, Boston College, Invited review talk, 8月 (1997).
- 147-1997** 高田康民, “ゲージ不変自己無撞着法の改良とハバード模型”, 日本物理学会講演、神戸、10月8日(1997).
- 148-1997** 高田康民, “物の性質と電子の社会学”, 兵庫県理化学会講演、洲本実業高校、10月20日(1997).
- 149-1997** Y. Takada, “Superconductivity in the Hubbard-Holstein Model and the Fullerene Superconductors”, Postech Workshop, Pohang, Invited talk, 12月16日 (1997).

1998

- 150-1998** H. Koizumi, T. Hotta, and Y. Takada, “Bloch Electrons in a Jahn-Teller Crystal and an Orbital-Density-Wave State due to the Berry Phase”, *Phys. Rev. Lett.* **80** (1998) 4518-4521.
- 151-1998** H. Yamagami and Y. Takada, “Strong Electron Correlation in a Localized State Described in Terms of Extended States: General Formulation and Illustration in a Helium Atom”, *J. Phys. Soc. Jpn.* **67** (1998) 2695-2714.
- 152-1998** H. Koizumi, T. Hotta, and Y. Takada, “Reply to the Comment by W. E. Pickett and D. J. Singh”, *Phys. Rev. Lett.* **81** (1998) 3803.
- 153-1998** T. Hotta, Y. Takada, and H. Koizumi, “Role of the Berry Phase in the Formation of Stripes in Manganite Oxides”, *Int. J. Mod. Phys. B* **12** (1998) 3437-3455.
- 154-1998** Y. Takada and H. Goto, “Exchange and Correlation Effects in the 3D Electron Gas in Strong Magnetic Fields and Application to Graphite”, *J. Phys. Condensed Matter* **10** (1998) 11315-11325.
- 155-1998** Y. Takada and T. Hotta, “Superconductivity in the Alkali-Doped Fullerides: Competition of Phonon-Mediated Attractions with Coulomb Repulsions in Polaron Pairing”, *Int. J. of Mod. Phys. B* **12** (1998) 3042-3051.
- 156-1998** 高田康民・常行真司, “国際会議報告：王子国際セミナー Quest for New Physical Phases under Extreme Conditions” 日本物理学会誌 **53** (1998) 785.
- 157-1998** 高田康民, “学界ニュース：1998年度ノーベル化学賞 Walter Kohn 教授” 日本物理学会誌 **53** (1998) 936-937.
- 158-1998** 高田康民, “有機導体における高温超伝導発現機構の基礎理論研究②” 三菱財団事業報告書 **29** (1998) 161-163.
- 159-1998** Y. Takada, “Exchange and Correlation Effects in the 3D Electron Gas in Strong Magnetic Fields”, APS March Meeting, Los Angeles, March 17 (1998).
- 160-1998** Y. Takada, “Superconductivity in the Alkali-Doped Fullerides: Competition of Phonon-Mediated Attractions with Coulomb Repulsions in Polaron Pairing”, 1st New3SC, Invited talk, Baton Rouge, 20 February (1998).
- 161-1998** Y. Takada, “Exchange and Correlation Effects in the 3D Electron Gas in Strong Magnetic Fields and Application to Graphite”, Oji Seminar, Invited talk, Tomakomai, 2 June (1998).

1999

- 162-1999** T. Endo, M. Horiuchi, Y. Takada, H. Yasuhara, “High Density Expansion of Correlation Energy and its Extrapolation to the Metallic Density Region”, *Phys. Rev. B* **59** (1999) 7367-7372.
- 163-1999** Y. Takada, T. Hotta, and H. Koizumi, “Stripe Structures and the Berry-Phase Connection: Concept of Geometric Energy”, *Int. J. Mod. Phys. B* **13** (1999) 3778-3782.
- 164-1999** 高田康民, “Kohn先生の物理と化学” 固体物理 **34** (1999) 68-73.
- 165-1999** 高田康民, “多体問題” 朝倉物理学大系第9巻、朝倉書店 (1999) 全379ページ.
- 166-1999** 高田康民, “有機導体における高温超伝導発現機構の基礎理論研究③” 三菱財団事業報告書 **30** (1999) 153-156.
- 167-1999** Y. Takada, “Crossover between Band and Mott Insulators”, APS March Meeting, Atlanta, March 26 (1999).
- 168-1999** 高田康民, “相互作用する電子系におけるバンドギャップ”、理論セミナー、4月23日(1999).

169-1999 高田康民、“ペリー位相と縞構造”、理論セミナー、10月8日(1999).

170-1999 Y. Takada, “Stripe Structures and the Berry-Phase Connection: Concept of Geometric Energy”, 2nd New3SC, Las Vegas, Invited talk, Tomakomai, 2 June (1999).

171-1999 高田康民、“ペリー位相と縞構造”、東北大学理学部物理セミナー、7月9日(1999).

2000

172-2000 T. Hotta, Y. Takada, H. Koizumi, and E. Dagotto, “Topological Scenario for Stripe Formation in Manganese Oxides”, Phys. Rev. Lett. **84** (2000) 2477-2480.

173-2000 Y. Takada, “Effective Mass of the $E \otimes e$ Jahn-Teller Polaron in Comparison with the Holstein Polaron”, Phys. Rev. B **61** (2000) 8631-8634.

174-2000 T. Hotta, E. Dagotto, H. Koizumi, and Y. Takada, “Stripes in Manganites”, Int. J. Mod. Phys. B **14** (2000) 3494-3499.

175-2000 崔田・高田康民、“固体分子水素の高温における新しい高压相” 高压力の科学と技術 **10** 特別号 (2000) 15-16.

176-2000 高田康民、“有機導体における高温超伝導発現機構の基礎理論研究④” 三菱財団事業報告書 **31** (2000) 153-155.

177-2000 高田康民、“グリーン関数法の新しい展開とバーテックス補正の入った強結合超伝導理論の構築” 「平成10～11年度科学研究費補助金(基盤研究(C)(2))」研究成果報告書、2000年3月.

178-2000 Y. Takada, “The $E \otimes e$ Jahn-Teller Polaron”, APS March Meeting, Minneapolis, March 22 (2000).

179-2000 Y. Takada, “Self-Energy Revision Operator Theory for the Many-Body Problem — Foundations and Application to the Dynamical Properties of the Electron Gas —”, Saha Institute 20th Birthday, Invited Talk, Calcutta, October 27 (2000).

180-2000 高田康民、“固体分子水素の高温における新しい高压相”, 第14回高压討論会特別講演、柏東葛プラザ、11月7日(2000).

181-2000 高田康民、“多電子系の動的応答”, 物性理論研究のフロンティア、物性研シンポジウム、11月29日(2000).

182-2000 T. Cui, Y. Takada, Q. Cui, Y. Ma, and G. Zou, “New high-pressure phase at high temperatures in solid molecular hydrogen and deuterium”, unpublished (2000).

2001

183-2001 Y. Takada and M. Kido, “Effect of Electron Correlation on the Bragg Reflection”, J. Phys. Soc. Jpn. **70** (2001) 21-24.

184-2001 T. Hotta, E. Dagotto, H. Koizumi, and Y. Takada, “Comment on Charge-Orbital Stripe Structure in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ ($x=1/2, 2/3$)”, Phys. Rev. Lett. **86** (2001) 2478.

185-2001 T. Cui, Y. Takada, Q. Cui, Y. Ma, and G. Zou, “Structural Phase Transition at High Temperatures in Solid Molecular Hydrogen and Deuterium”, Phys. Rev. B **64** (2001) 024108: 1-7.

186-2001 Y. Takada, “Self-Energy Revision Operator Theory for the Many-Body Problem: Application to Dynamic Properties of the Electron Gas”, Int. J. Mod. Phys. B **15** (2001) 2595-2610.

187-2001 Y. Takada, “Inclusion of Vertex Corrections in the Self-Consistent Calculation of Quasiparticles in Metals”, Phys. Rev. Lett. **87** (2001) 226402: 1-4.

188-2001 Y. Takada, “Polaron in the Jahn-Teller System and its Superconductivity”, Physica C **364-365** (2001) 71-73.

189-2001 Y. Takada and T. Hotta, “Concluding Remarks on CMR and Related Problems”, Int. J. Mod. Phys. B **15** (2001) 4267-4270.

190-2001 高田康民、“有機導体における高温超伝導発現機構の基礎理論研究⑤” 三菱財団事業報告書 **32** (2001) 144-146.

191-2001 高田康民、“物の性質と電子の社会学” 「未来の科学者サテライトスクール2001」8月1日(2001).

192-2001 Y. Takada, “Polaron in the Jahn-Teller System and its Superconductivity”, 3rd New3SC, Honolulu, Invited talk, Honolulu, 18 January (2001).

193-2001 Y. Takada, “Self-Energy Revision Operator Theory: Dynamical Properties in the Electron Gas”, APS March Meeting, Seattle, March 16 (2001).

194-2001 高田康民、“自己エネルギー改訂演算子理論 — 多電子系の動的応答 —”, 筑波大セミナー、9月12日(2001).

195-2001 高田康民、“GWT法: 金属における自己エネルギーと分極関数の自己無撞着な計算”, 物性研理論セミナー、11月9日(2001).

196-2001 高田康民、“自己エネルギー改訂演算子理論 — 多電子系の動的応答 —”, 上智大理工学部セミナー、12月6日(2001).

2002

- 197-2002** H. Koizumi and Y. Takada, “Geometric Phase Current in Solids: Derivation in a Path-Integral Approach”, Phys. Rev. B **65** (2002) 153104: 1-4.
- 198-2002** Y. Takada and H. Yasuhara, “Dynamical Structure Factor of the Homogeneous Electron Liquid: Its Accurate Shape and Interpretation of Experiments on Al”, Phys. Rev. Lett. **89** (2002) 216402: 1-4.
- 199-2002** 高田康民、 “多電子系の動的応答理論（その1）” 固体物理 **37** (2002) 455-463.
- 200-2002** 高田康民、 “有機導体における高温超伝導発現機構の基礎理論研究⑥” 三菱財団事業報告書 **33** (2002) 135-137.
- 201-2002** Y. Takada, “New Scheme for Dynamical Response in Many-Electron Systems”, Invited Talk, 2nd Σ_{xc} International Meeting, RICS-AIST, Tsukuba, 31 January (2002).
- 202-2002** Y. Takada, “Accurate Dynamic Structure Factor of the Homogeneous Electron Liquid with Interpretation of Experiments on Aluminum from this Aspect”, APS March Meeting, Indianapolis, March 21 (2002).
- 203-2002** 高田康民、 “フラーレン超伝導体と室温超伝導への道”, 所員昼食会講演, 4月23日 (2002).

2003

- 204-2003** Y. Takada and A. Chatterjee, “Possibility of a Metallic Phase in the Charge-Density-Wave—Spin-Density-Wave Crossover Region in the One-Dimensional Hubbard-Holstein Model at Half Filling”, Phys. Rev. B **67** (2003) 081102(R): 1-4.
- 205-2003** Y. Takada and T. Cui, “Quantum Fluctuations in a Four-Body Coulomb System and Breakdown of the Adiabatic Approximation”, J. Phys. Soc. Jpn. **72** (2003) 2671-2677.
- 206-2003** 高田康民、 “多電子系の動的応答理論（その2）” 固体物理 **38** (2003) 595-603.
- 207-2003** Y. Takada, “Flashback of My Post-doc Days with Walter” in *Walter Kohn* (edited by M. Sheffler and P. Weinberger), Springer (2003) 257-259.
- 208-2003** V. U. Nazarov, S. Nishigaki, J. M. Pitarke, and Y. Takada, “Particle-Solid interactions: Variational Versus Perturbative Approaches” in *Proc. 23rd Werner Brandt Workshop*, edited by S. A. Cruz (2003) 23.
- 209-2003** 高田康民、 “ヤーン・テラー・ポーラロンとその超伝導” 「平成 13～14 年度科学研究費補助金（基盤研究(C)(2)）」研究成果報告書、2003年3月.
- 210-2003** 安原洋、高田康民、 “GW 近似を超えた理論の新展開と固体の電子構造への応用” 「平成 13～14 年度科学研究費補助金（基盤研究(C)(2)）」研究成果報告書、2003年3月.
- 211-2003** 高田康民、 “強磁場下3次元電子ガスの交換相関効果とグラファイトの電子状態”, 強磁場セミナー招待講演, 2月10日 (2003).
- 212-2003** Y. Takada, “Metallic Phase at the CDW-SDW Crossover in the Hubbard-Holstein Model at Half Filling”, APS March Meeting, Austin, March 6 (2003).

2004

- 213-2004** A. Chatterjee and Y. Takada, “The Hubbard-Holstein Model with Anharmonic Phonons in One Dimension”, J. Phys. Soc. Jpn. **73** (2004) 964-969.
- 214-2004** V. U. Nazarov, J. M. Pitarke, C. S. Kim, and Y. Takada, “Time-Dependent Density-Functional-Theory Approach to Nonlinear Particle-Solid Interactions in Comparison with Scattering Theory”, J. Phys.: Condensed Matter **16** (2004) 8621-8631.
- 215-2004** 高田康民、 “多電子系の動的応答理論（その3）” 固体物理 **39** (2004) 447-456.
- 216-2004** Y. Takada, “Excitonic Collective Mode and Negative Compressibility in Electron Liquids”, Invited Talk, Stripes 2004, Rome, 29 September (2004).
- 217-2004** 高田康民、 “CDW-SDW 境界における金属状態”, 新物性の理論研究会招待講演, 名古屋、11月2日 (2004).

2005

- 218-2005** V. U. Nazarov, J. M. Pitarke, C. S. Kim, and Y. Takada, “Time-Dependent Density-Functional Theory for the Stopping Power of an Interacting Electron Gas for Slow Ions”, Phys. Rev. B **71** (2005) 121106(R): 1-4.
- 219-2005** Y. Takada, “Excitonic Collective Mode and Negative Compressibility in Electron Liquid”, J. of Superconductivity **18** (2005) 785-789.
- 220-2005** V. U. Nazarov, C. S. Kim, and Y. Takada, “Spin Polarization of Light Atoms in Jellium: Detailed Electronic Structures”, Phys. Rev. B **72** (2005) 233205:1-4.
- 221-2005** Y. Takada, “Dynamical Properties of the Electron Liquid: Importance of the Excitonic Effect” in *Proc. 1st NAREGI Int. Nanoscience Conference*, edited by F. Hirata (2005) 56.
- 222-2005** 高田康民、 “多電子系の動的応答理論（その4）” 固体物理 **40** (2005) 643-653.

- 223-2005** Y. Takada, “Excitonic Mode and Negative Compressibility in Electron Liquids”, APS March Meeting, LA, March 21 (2005).
- 224-2005** Y. Takada, “Dynamical Properties of the Electron Liquid: Importance of the Excitonic Effect”, Invited Talk, Naregi International Conference, Nara, 15 June (2005).
- 225-2005** Y. Takada, “Dynamical Localization-Delocalization Transition in the Hubbard-Holstein Model: Lecture 1”, Invited Talk, Enrico Fermi International School of Physics, Varenna, 27 June (2005).
- 226-2005** Y. Takada, “Dynamical Localization-Delocalization Transition in the Hubbard-Holstein Model: Lecture 2”, Invited Talk, Enrico Fermi International School of Physics, Varenna, 27 June (2005).
- 227-2005** Y. Takada, “Negative Compressibility in Electron Liquids: Physical Origin and Consequence”, ISSP External Review 2005, Kashiwa, November 15 (2005).
- 228-2005** 高田康民, “GWT法の基礎と最近の発展”, 物性研短期研究会招待講演, 12月26日 (2005).

2006

- 229-2006** Y. Takada, “Dynamical Localization-Delocalization Transition in the Hubbard-Holstein Model” in *Proceedings of the International School of Physics ‘Enrico Fermi’ Course CLXI - Polarons in Bulk Materials and Systems with Reduced Dimensionality* (edited by G. Iadonisi and J. Ranninger), IOS Press, Amsterdam (2006) 207-226.
- 230-2006** 高田康民, “物性物理学の回顧と展望 (マービン・コーエン)” *パリティ* **21** (12号) (2006) 24-32.
- 231-2006** Y. Takada, “From Chemical Bonding to Confinement due to Nonadiabatic Processes by the Enhancement of Quantum Fluctuations”, Invited Talk at the Sapporo Workshop, 26 January (2006).
- 232-2006** Y. Takada, “Manifestation of Negative Compressibility in Low-Density Electron Liquids: Anomaly in the Ion-Pair Distribution Function in Supercritical Fluid Rb”, Talk at the APS March Meeting held at Baltimore, 15 March (2006).
- 233-2006** Y. Takada, “The $E \otimes e$ and $T \otimes t$ Jahn-Teller Polarons”, Invited Talk at the International Symposium on the Jahn-Teller Effect, Trieste, Italy, 28 August (2006).
- 234-2006** Y. Takada, “Basics and Illustration of the GWT Method”, Invited talk at the International Conference on First Principles Calculation of Correlated Electrons, Tokyo, 1 December (2006).
- 235-2006** Y. Takada, “Polarons in Jahn-Teller Crystals: Intrinsic Difference between e_g and t_{2g} Electrons”, Invited talk at the International Conference Superstripes 2006 held at Rome, Italy, 20 December (2006).
- 236-2006** 高田康民, “低密度電子ガス系での負の誘電関数と超臨界液体金属ルビジウムのイオン対相関関数の異常”, 特定領域研究「異常量子物質」成果報告会、仙台、2006年1月5日。

2007

- 237-2007** Y. Takada and M. Masaki, “The $E \otimes e$ and $T \otimes t$ Jahn-Teller Polarons”, *J. Molecular Structure* **830** (2007) 207-210.
- 238-2007** Y. Takada and M. Masaki, “Polarons in Jahn-Teller Crystals: Intrinsic Difference between e_g and t_{2g} Electrons”, *J. Superconductivity and Novel Magnetism*, **20** (2007) 629-633.
- 239-2007** V. U. Nazarov, J. M. Pitarke, Y. Takada, G. Vignale, and Y.-C. Chang, “Including Nonlocality in the Exchange-Correlation Kernel from Time-Dependent Current Density Functional Theory: Application to the Stopping Power of Electron Liquids”, *Phys. Rev. B* **76** (2007) 205103:1-6.
- 240-2007** Y. Takada, “Superconductivity with Short Coherence Length”, *Int. J. Mod. Phys. B* **21** (2007) 3138-3140.
- 241-2007** 高田康民, “会議だより：国際ワークショップ・シンポジウム「密度汎関数理論の基礎と応用」” *固体物理* **42** (2007) 681-688.
- 242-2007** 高田康民, “短コヒーレンス長の超伝導：その転移温度計算” *秋光特定研究 News Letter* **4** (2007) 6-7.
- 243-2007** H. Maebashi and Y. Takada, “Pseudo-Quantum Criticality in Electron Liquids Exhibited in Expanded Alkali Metals”, unpublished; arXiv:0706.4001v1; 27 June (2007).
- 244-2007** 高田康民, “電子相関の強い多ポーラロン系での電子フォノン複合物性と超伝導” 「平成17～18年度科学研究費補助金（特定領域研究：異常量子物質の創製）」研究成果報告書、2007年5月。
- 245-2007** 高田康民, “物性研50年の研究：理論研究”、2007年8月。
- 246-2007** Y. Takada, “Superconductivity with Short Coherence Length”, Invited talk at New³SC-6, held at Sydney, Australia, 10 January (2007).
- 247-2007** Y. Takada, “Quasiparticle Properties of the Electron Liquid”, Invited talk at Sapporo Workshop at Hokkaido University, 15 February (2007).
- 248-2007** Y. Takada, “Negative Compressibility in the Electron Liquid: Physical Origin and Consequence”, Invited seminar talk at Jilin University, Changchun, China, 28 May (2007).

249-2007 Y. Takada, “The Electron Self-Energy in the Green’s-Function Approach: Beyond the GW Approximation”, Lecture talk at ISSP Workshop/Symposium on Fundamentals and Applications of the Density Functional Theory, Kashiwa, 7 August (2007).

250-2007 高田康民、“STLS 理論の改良”、招待講演、北陸先端科学技術大学院大学、金沢、2007 年 12 月 10 日。

2008

251-2008 V. U. Nazarov, J. M. Pitarke, Y. Takada, G. Vignale, Y.-C. Chang, “Time-Dependent Current-Density Functional Theory for the Friction of Ions in an Interacting Electron Gas”, *Int. J. Mod. Phys. B* **22** (2008) 3813-3839.

252-2008 Y. Takada, “Improvement on the STLS Approach: Application to the Spin Fully-Polarized Low-Density Electron Gas”, Talk at the APS March Meeting held at New Orleans, 10 March (2008).

253-2008 Y. Takada, “A General Scheme for Improving Accuracy in Implementing Self-Consistent Iterative Calculations: Illustration in the STLS Theory”, Invited Seminar Talk at Chiba University, 26 May (2008).

254-2008 Y. Takada, “Mechanism of Superconductivity in Graphite Intercalation Compounds including CaC_6 ”, Invited talk at the International Conference Superstripes 2008 held at Erice, Italy, 26 July-01 August (2008).

255-2008 C. Hori and Y. Takada, “Quasi-Particle Properties in the $E \otimes e$ Jahn-Teller Systems: Bipolaron Physics in Terms of Effective Spin Hamiltonians”, Talk at the XIX International Symposium on the Jahn-Teller Effect at Heidelberg, Germany, 26 August (2008).

256-2008 Y. Takada, “The Electron Self-Energy in the Green’s-Function Approach: Beyond the GW Approximation”, Invited talk at the 3rd International Workshop/School on TDDFT: Prospects and Applications, held at Benasque, Spain, 12 September (2008).

2009

257-2009 Y. Takada, “Mechanism of Superconductivity in Graphite Intercalation Compounds Including CaC_6 ”, *J. Supercond. Nov. Magn.* **22** (2009) 89-92.

258-2009 Y. Takada, “Unified Model for Superconductivity in Graphite Intercalation Compounds: Prediction of Optimum T_c and Suggestion for its Realization”, *J. Phys. Soc. Jpn.* **78** (2009) 013703:1-4.

259-2009 K. Yoshizawa and Y. Takada, “New General Scheme for Improving Accuracy in Implementing Self-Consistent Iterative Calculations: Illustration in the STLS Theory”, *J. Phys.: Condens. Matter* **21** (2009) 064204:1-5.

260-2009 H. Maebashi and Y. Takada, “Towards First-Principles Understanding of the Metal-Insulator Transition in Fluid Alkali Metals”, *J. Phys.: Condens. Matter* **21** (2009) 064205:1-6.

261-2009 M. Shimomoto and Y. Takada, “Biexciton Formation in the Nonadiabatic Mutual-Polarization Mechanism”, *J. Phys. Soc. Jpn.* **78** (2009) 034706:1-6.

262-2009 H. Maebashi and Y. Takada, “First-Principles Understanding of the Anomalous Structural Change in an Expanded Liquid Alkali Metal”, *J. Phys. Soc. Jpn.* **78** (2009) 053706:1-4.

263-2009 高田康民、“グラファイト層間化合物の超伝導機構” *固体物理* **44** (2009) 361-370.

264-2009 高田康民、“多体問題特論” 朝倉物理学大系第 15 卷、朝倉書店 (2009) 全 398 ページ。

265-2009 C. Hori and Y. Takada, “Polarons and Bipolarons in Jahn-Teller Crystals” in *The Jahn-Teller Effect: Fundamentals and Implications for Physics and Chemistry* (edited by H. Koeppl, H. Barentzen, and D. R. Yarkony) Springer, Chapter 7 Second Section, pp. 841-871 (2009).

266-2009 高田康民・村中隆弘、“ MgB_2 ” 「超伝導ハンドブック」(福山秀敏、秋光純編集) 朝倉書店 75-82 (2009).

267-2009 高田康民、“物性物理学 IA_講義資料”、東京大学理学系研究科夏学期、4-7 月 (2009).

268-2009 Y. Takada, “Standard Model for Superconductivity in Graphite Intercalation Compounds: Prediction of Optimum T_c ”, Talk at the APS March Meeting held at Pittsburgh, 17 March (2009).

269-2009 高田康民、“グラファイト層間化合物の超伝導理論”、日本物理学会シンポジウム招待講演、熊本、9 月 26 日 (2009).

270-2009 Y. Takada, “‘Standard Model’ for Superconductivity in Graphite Intercalation Compounds: Prediction of Optimum T_c ”, 物性研理論セミナー, 1 月 23 日 (2009).

271-2009 高田康民、“グラファイト層間化合物の超伝導 (T_c の第一原理計算に対するコメントを添えて)”, 科研費研究会講演、阪大吹田キャンパス、3 月 25 日 (2009).

2010

272-2010 H. Maebashi and Y. Takada, “Inclusion of Vertex Corrections for Superconductivity in Gauge-Invariant Self-Consistent Approximations”, to appear in *Physica C* (2010).

- 273-2010** S. Ishii, H. Maebashi, and Y. Takada, “Improvement on the GW Γ Scheme for the Electron Self-Energy and Relevance of the G_0W_0 Approximation from This Perspective”, unpublished; arXiv:1003.3342v2; 17 March (2010)..
- 274-2010** Y. Takada, “Theory of Superconductivity in Graphite Intercalation Compounds”, in *Comprehensive Semiconductor Science and Technology* (edited by P. Bhattacharya, H. Kamimura, and R. Fornari) Elsevier, Chapter 31, 30 pages (2010).
- 275-2010** Y. Takada, “Theory for Reliable First-Principles Prediction of the Superconducting Transition Temperature”, in *Carbon-based New Superconductors: Toward High- T_c Superconductivity* (edited by J. Haruyama) Pan Stanford (2010) 27 pages.
- 276-2010** 高田康民, “相補的研究としての多体論：多体摂動論” 「密度汎関数理論の発展とマテリアルデザインへの応用」(赤井久純、白井光雲編)、シュプリンガー・ジャパン (2010) 1.2.3 節、20 ページ.
- 277-2010** 高田康民, “第一原理からの量子物性”, 京都大学理学部集中講義 5月(2010).
- 278-2010** Y. Takada, “On the First-Principles Determination of T_c ”, Invited talk at the International Conference “Quantum Phenomena in Complex Matter (Superstripes 2010)” held at Erice, Italy, 19-25 July (2010).
- 279-2010** 高田康民, “科学技術研究費新学術領域申請資料”, 物質デザイン領域 (押山代表) 平成 21 年 10 月から平成 22 年 3 月まで。5 月にヒヤリング。6 月に採択 (2010).
- 280-2010** 高田康民, “第一原理系励起状態の多体論と高転移温度超伝導物質デザイン”, 新学術領域キックオフ会議発表資料。東大工学部 6 号館 6 3 号講義室、9 月 18 日(2010).
- 281-2010** Y. Takada, “Improved GW Γ Scheme for First-Principles Calculation of the Electron Self-Energy”, Talk at the APS March Meeting held at Portland, 18 March (2010).
- 282-2010** Y. Takada, “Theory for Reliable First-Principles Prediction of the Superconducting T_c ”, Talk at the 13th Asian Workshop on First-Principles Electronic Structure Calculation (FPESC), Pohang, Korea, 1 November (2010).
- 283-2010** 高田康民, “超伝導転移温度の第一原理計算への挑戦と課題”, 今田班・高田班合同研究会、東大工学部 6 号館 3 階セミナー室 A、11 月 17 日 (2010).

2011

- 283-2011**
高田康民, “第一原理からの多体問題：我々の視点”, 新学術領域平成 22 年度報告会発表資料。東大工学部 6 号館 6 3 号講義室、3 月 4 日(2011).
- 284-2011**
Y. Takada, “APS Outstanding Referee Award: 2011”, February 2011.
- 285-2011**
Y. Takada, “Superconductivity in a Correlated $E \otimes e$ Jahn-Teller System”, Invited talk at the International Conference “Quantum Phenomena in Complex Matter (Stripes 2011)” held at Rome, Italy, 11-15 July (2011).
- 286-2011**
高田康民, “物性物理学 III_講義資料”, 東京大学理学系研究科夏学期、4-7 月 (2011).
- 287-2011**
高田康民, “相補的研究としての多体論—多体摂動論” 「密度汎関数理論の発展：マテリアルデザインへの応用」(赤井久純、白井光雲編)、シュプリンガー・ジャパン (2011) 1.2.4 節、pp. 66-82.
- 288-2011**
高田康民, “物性理論研究者が語る「研究と私」” 物性研究所一般公開資料 (2011).
- 289-2011**
H. Zheng and Y. Takada, “Importance of the Counter-Rotating Coupling in the Superfluid-Mott-Insulator Quantum Phase Transition of Light in the Jaynes-Cummings Lattice”, *Phys. Rev. A* **24** (2011) 043819: 1-8.
- 290-2011**
H. Maebashi and Y. Takada, “Analysis of exact vertex function for improving on the GW Γ scheme for first-principles calculation of electron self-energy”, *Phys. Rev. B* **24** (2011) 245134: 1-13.

2012

- 291-2012**
高田康民, “GW Γ 法の開発と低密度電子液体への応用：電子正孔非対称励起のフェルミ流体”, 物性研究所短期研究会「計算科学の課題と展望」東大物性研 6 階大講義室、2 月 21 日 15:20-15:40 (2012).
- 292-2012**
C. Hori, H. Maebashi, and Y. Takada, “Superconductivity in a Correlated $E \otimes e$ Jahn-Teller System”, *J. Supercond. Nov. Magn.* **25** (2012) DOI 10.1007/s10948-012-1518-0.
- 293-2012**
高田康民, “超伝導転移温度の第一原理計算” 【岩波講座：計算科学】「計算と物質」(押山淳編)、岩波 (2012) 第 8 章 45 ページ.