

## References

- [1] *Structure of the vacancy induced spin polaron in solid  $^3\text{He}$* ,  
G. Montambaux, P. Lederer and M. Héritier,  
J. Physique **40**, L 499 (1979)
- [2] *Solidons and rotons in liquid helium*,  
M. Héritier, G. Montambaux and P. Lederer,  
J. Physique **40**, L 493 (1979)
- [3] *Vacancies in solid  $^3\text{He}$* ,  
G. Montambaux, M. Héritier and P. Lederer,  
J. Mag. and Mag. Mat. **15**, 321 (1980)
- [4]  *$^3\text{He}$  as a magnetic semiconductor*,  
M. Héritier, P. Lederer and G. Montambaux,  
J. Physique Colloq. **41**, C-5-353 (1980)
- [5] *Solidon excitations in liquid helium films*,  
M. Héritier and G. Montambaux,  
Ordering in two dimensions, S. K. Sinha ed., p. 283 (North Holland 1980)
- [6] *Magnetic couplings in 2D  $^3\text{He}$  solid layers*,  
M. Héritier, G. Montambaux and P. Lederer,  
Ordering in two dimensions, S. K. Sinha ed., p. 409 (North Holland 1980)
- [7] *Self-trapped excitations in condensed matter physics*,  
M. Héritier, P. Lederer and G. Montambaux,  
J. Phys. **C 13**, L 703 (1980)
- [8] *Self-trapped excitations in solid and liquid helium*,  
M. Héritier, P. Lederer and G. Montambaux,  
Recent developments in Cond. Mat. Plenum, Vol. 4, 439 (1981)
- [9] *Solidons bound to a solid-liquid interface and 2D solidons in liquid He layers*,  
G. Montambaux and M. Héritier,  
J. Low Temp. Phys. **42**, 515 (1981)
- [10] *Comment on "Low temperature thermal conductivity of bcc  $^3\text{He}$ "*,  
M. Héritier, P. Lederer and G. Montambaux,  
Phys. Rev. **B 24**, 1592 (1981)
- [11] *Interpretation of experiments in liquid helium by the solidon model for rotons*,  
M. Héritier and G. Montambaux,  
Int. Conf. on Phonon Phys., Bloodmington USA, J. Physique Coll. **42**, C 6-534 (1981)

- [12] *Vacancies in a quantum crystal of fermions, The spin polaron in solid  $^3\text{He}$ ,*  
G. Montambaux, M. Héritier and P. Lederer,  
J. Low Temp. Phys. **47**, 39 (1982)
- [13] *Polaron density of states of a hole in a narrow band of an alternate lattice of fermions,*  
G. Montambaux,  
J. Phys. C **15**, 4523 (1982)
- [14] *Roton and vortex core structure in superfluid  $^4\text{He}$ ,*  
G. Montambaux and M. Héritier,  
75th Jubilee conference on  $^4\text{He}$ , JGM Armitage ed. (World scientific 1983)
- [15] *Susceptibility anomalies in the vicinity of a non polar commensurate phase,*  
G. Montambaux, P. Lederer and G. Theodorou,  
Phys. Rev. B **30**, 2875 (1984)
- [16] *Spin effects in quasi-one-dimensional conductors under magnetic field,*  
G. Montambaux, M. Héritier and P. Lederer,  
J. Physique Lett. **45**, L 533 (1984)
- [17] *Theory of the memory effect in thiourea. Defect density waves in modulated systems,*  
P. Lederer, G. Montambaux, J. P. Jamet and M. Chauvin,  
J. Physique Lett. **45**, L 627 (1984)
- [18] *Stability of spin density waves in  $(\text{TMTSF})_2\text{ClO}_4$ : quantized nesting effect,*  
M. Héritier, G. Montambaux and P. Lederer,  
J. Physique Lett. **45**, L 943 (1984)
- [19] *Stability of spin density waves in quasi-1D conductors, application to  $(\text{TMTSF})_2\text{ClO}_4$ ,*  
M. Héritier, G. Montambaux and P. Lederer,  
ICSM 84, Mol. Cryst. Liq. Cryst., **119**, 97 (1985)
- [20] *Defect Density Waves in modulated systems,*  
P. Lederer, G. Montambaux and J.P. Jamet,  
ICSM 84, Mol. Cryst. Liq. Cryst. **121**, 99 (1985)
- [21] *Phase diagram of quasi-1D conductors in strong magnetic field,*  
M. Héritier, G. Montambaux and P. Lederer,  
J. Physique Lett. **46**, L 831 (1985)
- [22] *Spin susceptibility of the 2D electron gas with open Fermi surface under magnetic field,*  
G. Montambaux, M. Héritier and P. Lederer,  
Phys. Rev. Lett. **55**, 2078 (1985)

- [23] *Le comportement surprenant d'un conducteur organique*,  
M. Héritier, P. Lederer and G. Montambaux,  
La Recherche **16**, 382 (1985)
- 23-bis *on Hannibal's elephants*,  
G. Montambaux,  
New Scientist, feb. 7th, p. 39 (1985)
- [24] *Transitions de phase induites par un champ magnétique et quantification de l'effet Hall dans les conducteurs quasi-unidimensionnels*,  
M. Héritier, G. Montambaux and P. Lederer,  
Proc. Congrès National de la Soc. Française de Phys., 225 (1985)
- [25] *Modulated Phases, memory effect and Defect Density Waves*,  
P. Lederer, J. P. Jamet and G. Montambaux,  
Ferroelectrics **66**, 25 (1986)
- [26] *Phase diagram of quasi-one-dimensional conductors in magnetic field*,  
M. Héritier, G. Montambaux and P. Lederer,  
ICM 85, J. Magn. Magn. Mat. **54**, 641 (1986)
- [27] *Band filling and magnetic field effects on the phase diagram of quasi-one-dimensional conductors*,  
G. Montambaux, M. Héritier and P. Lederer,  
Phys. Rev. **B 33**, 777 (1986)
- [28] *Magnetic field induced spin density wave phase in the quasi 1D electron gas : structure of the transition line*,  
G. Montambaux, M. Héritier and P. Lederer,  
J. Phys. **C 19**, L 293 (1986)
- [29] *Quantized density wave ordering induced by a magnetic field in quasi 1D conductors in the weak coupling limit*,  
D. Poilblanc, M. Héritier, G. Montambaux and P. Lederer,  
J. Phys. **C 19**, L 321 (1986)
- [30] *Cascade quantique de transitions de phase sous champ magnétique*,  
G. Montambaux, M. Héritier and P. Lederer,  
Images de la Physique 1986, Le Courrier du CNRS **65**, 24
- [31] *Quantum cascade of field-induced SDW phases in quasi 1D conductors*,  
G. Montambaux, D. Poilblanc, M. Héritier and P. Lederer,  
E.P.S. Conference , Stockholm, Physica Scripta **13**, 267 (1986)
- [32] *Cascade of field induced Spin Density Wave phases in quasi one dimensional conductors*,  
G. Montambaux, M. Héritier and P. Lederer,  
Yamada Conference XV, Physica **B 143**, 431 (1986) and Syn. Met. **19**, 993 (1986)

- [33] *Quantized Density Wave ordering induced by a magnetic field in quasi one dimensional conductors in the weak coupling limit*,  
D. Poilblanc, M. Héritier, G. Montambaux and P. Lederer,  
*Physica B* **143**, 436 (1986) and *Syn. Met.* **19**, 994 (1986)
- [34] *Susceptibility and instability of the quasi-one-dimensional electron gas under magnetic field*,  
G. Montambaux,  
NATO Advanced Study Institute on Low dimensional conductors and superconductors, Magog, Canada,  
Vol. 155, 233, D. Jérôme and L. Caron eds (Plenum, New York 1986)
- [35] *Quantized Hall effect in the field-induced density wave phases of low dimensional conductors*,  
D. Poilblanc, G. Montambaux, M. Héritier and P. Lederer,  
*Phys. Rev. Lett.* **58**, 270 (1987)
- [36] *The specific heat jump at the magnetic field induced metal-spin density wave transition in quasi one dimensional conductors*,  
G. Montambaux,  
*J. Phys. C* **20**, L 327 (1987)
- [37] *Magneto-Rotons in an ultra quantum crystal : field induced spin density wave phases*,  
P. Lederer, D. Poilblanc and G. Montambaux,  
*Int. Conf. on Low Temp. Phys.* 18, Japan, *Jap. J. Appl. Phys.* **26**, 573 (1987)
- [38] *Antiferromagnetism and superconductivity in a quasi-two-dimensional electron gas : scaling theory of a generic Hubbard model*,  
P. Lederer, G. Montambaux and D. Poilblanc,  
*J. de Physique* **48**, 1613 (1987)
- [39] *Collective modes in an ultra-quantum crystal : field induced spin density wave phases*,  
P. Lederer, D. Poilblanc and G. Montambaux,  
*Europhys. Lett.* **5**, 169 (1988)
- [40] *Quantum and thermal fluctuations of the anisotropic two dimensional electron gas under magnetic field*,  
P. Lederer and G. Montambaux,  
*Phys. Rev. B* **37**, 5375 (1988) and *Syn. Met.* **27**, A 147 (1988)
- [41] *Thermodynamics of the anisotropic electron gas under magnetic field*,  
G. Montambaux and D. Poilblanc,  
*Phys. Rev. B* **37**, 1913 (1988)
- [42] *The metal-spin density wave transition in a quasi one dimensional conductor : pressure and magnetic field effects*,  
G. Montambaux,  
*Phys. Rev. B* **38**, 4788 (1988)
- [43] *Fractional quantized Hall effect in a quasi-1D conductor*,  
G. Montambaux and P. Littlewood,  
*Phys. Rev. Lett.* **62**, 953 (1989)

- [44] *Phase boundary and magnetization in field induced spin density wave systems*,  
G. Montambaux, M. J. Naughton, R. V. Chamberlin, X. Yan, P. M. Chaikin and M. Ya Azbel,  
Phys. Rev. B, Rapid Comm. **39**, 885 (1989)
- [45] *Magnetic field and density waves in quasi-1D conductors*,  
G. Montambaux,  
ICSM 1988 , Santa Fe, Synt. Met. **29**, F 297 (1989)
- [46] *Persistent currents in mesoscopic rings : ensemble averages and half quantum flux periodicity*,  
H. Bouchiat and G. Montambaux,  
J. Physique **50** , 2695 (1989)
- [47] *Observation of giant magnetoresistance oscillations in the two-dimensional organic conductor  $\beta$ -(BEDT-TTF) $_2$ I $_3$* ,  
W. Kang, G. Montambaux, J. R. Cooper, D. Jérôme, P. Batail and D. Lenoir,  
Phys. Rev. Lett. **62**, 2559 (1989)
- [48] *Comment on the theory of electronic diamagnetism in two dimensional lattices*,  
G. Montambaux,  
Phys. Rev. Lett. **63**, 1657 (1989)
- [49] *Quantized Hall effect and a new field-induced phase transition in the organic superconductor (TMTSF) $_2$ PF $_6$* ,  
J.R. Cooper, W. Kang, P. Auban, G. Montambaux and D. Jérôme,  
Phys. Rev. Lett. **63**, 1984 (1989)
- [50] *Some properties of the quasi 1D conductors in a magnetic field*,  
G. Montambaux,  
3rd European Conference on Low Dimensional Conductors and Superconductors,  
Dubrovnik 1989, Fizika **21**, 35 (1989)
- [51] *On the Fermi surface of the organic conductor  $\beta$  - (BEDT - TTF) $_2$ I $_3$*   
W. Kang, G. Montambaux, J. R. Cooper and D. Jérôme,  
3rd European Conference on Low Dimensional Conductors and Superconductors,  
Dubrovnik 1989, Fizika **21**, 30 (1989)
- [52] *Anomalous magnetoresistance anisotropy in Metallic and Spin Density Wave phases of the quasi-one dimensional organic conductor (TMTSF) $_2$ ClO $_4$* ,  
G. S. Boebinger, G. Montambaux, M. L. Kaplan, R. C. Haddon, S. V. Chichester and L. Y. Chiang,  
Phys. Rev. Lett. **64**, 591 (1990)
- [53] *Quantized Hall effect in quasi 1-D and 3-D systems*,  
G. Montambaux,  
"New Trends in Magnetism", Recife 26-28 July 1989, M. D. Coutinho Filho and S. M. Rezende eds, World Scientific, p.206-217 (1990)
- [54] *Magneto-thermodynamics and Magnetotransport in (TMTSF) $_2$ ClO $_4$* ,  
G. Montambaux,  
The first ISSP international symposium of the Physics and Chemistry of organic superconductors, G. Saito and S. Kagoshima eds., Proceedings in Physics 51 , p.97 (1990) Springer Verlag

- [55] *Some recent experiments on the Field Induced Spin Density Wave states in the Bechgaard salts*,  
P.M. Chaikin, J.S. Brooks, S.T. Hannahs, W. Kang, G. Montambaux and L.Y. Chiang,  
The first ISSP international symposium of the Physics and Chemistry of organic superconductors, G. Saito  
and S. Kagoshima eds., Proceedings in Physics 51 , p.81 (1990) Springer Verlag
- [56] *Quantized Hall effect in three dimensions*,  
G. Montambaux and M. Kohmoto,  
Phys. Rev. **B 41**, 11417 (1990)
- [57] *Specific heat study of the anomalous quantum behavior of  $(TMTSF)_2ClO_4$* ,  
N.A. Fortune, J.S. Brooks, M.J. Graf, G. Montambaux, L.Y. Chiang, J.A. Perenboom and D. Altof,  
Phys. Rev. Lett. **64**, 2054 (1990)
- [58] *Stabilization of flux states in two dimensional lattices*,  
Y. Hasegawa, Y. Hatsugai, M. Kohmoto and G. Montambaux,  
Phys. Rev. **B 41**, 9174 (1990)
- [59] *High magnetic field phases of the  $(TMTSF)_2X$  charge complex salts*,  
J.S. Brooks, N.A. Fortune, P.M. Chaikin, L.Y. Chiang, G. Montambaux and J.A. Perenboom ,  
Proc. of the MRS symposium: Electrical, optical and magnetic properties of organic solid state materials,  
Boston 1989, L.Y. Chiang, P.M. Chaikin and D.O eds., M.R.S. symposium proceedings vol.173, p. 217  
(1990)
- [60] *Persistent currents in mesoscopic metallic rings: ensemble average*,  
G. Montambaux, H. Bouchiat, D. Sigeti and R. Friesner,  
Phys. Rev. B, rapid comm., **42**, 7647 (1990)
- [61] *Field induced spin density waves in quasi-1D conductors*,  
G. Montambaux  
10th conference of the Condensed Matter Division of the European Physical Society, Lisbonne 1990, Physica  
Scripta T 35 , 188 (1991)
- [62] *Les conducteurs quasi-unidimensionnels sous champ magnétique*,  
*Quasi-1D conductors in a magnetic field*,  
G. Montambaux  
Colloque d'expression française Transphase-3, Djerba (1990), Phase Transitions **30**, 27 (1991)
- [63] *Persistent currents in mesoscopic rings: ensemble average and half-flux quantum periodicity*,  
H. Bouchiat, G. Montambaux, L. Lévy, G. Dolan and D. Dunsmuir,  
NATO Advanced Study Institute "Quantum Coherence in Mesoscopic Systems", Les Arcs (1990), NATO  
ASI series B254 , 245 (plenum 1991)
- [64] *Electrons in magnetic fields and periodic potentials*,  
G. Montambaux,  
Int. Conf. on the Science and Technology of Synthetic Metals, Tübingen 1990,  
Synth. Met. **43**, 3807 (1991)

- [65] *On the fast oscillations and FISDW reentrance in  $(TMTSF)_2ClO_4$ ,*  
M. Naughton and G. Montambaux,  
Int. Conf. on the Science and Technology of Synthetic Metals, Tübingen 1990,  
Synth. Met. **43**, 3995 (1991)
- [66] *Aharonov-Bohm flux and statistics of energy levels in metals,*  
N. Dupuis and G. Montambaux,  
Phys. Rev. **B 43**, 14390 (1991)
- [67] *Persistent currents, conductance and boundary conditions,*  
H. Bouchiat, G. Montambaux and D. Sigeti,  
Phys. Rev. **B 44**, 1682 (1991)
- [68] *Des courants permanents dans des anneaux métalliques: un effet quantique macroscopique,*  
G. Montambaux, H. Bouchiat and L. Lévy,  
Images de la Physique 1991, Le courrier du CNRS, **77**, 77
- [69] *Organic conductors and superconductors,*  
G. Montambaux,  
3rd International Symposium on Research in High Magnetic Fields, Amsterdam  
Physica **B 177**, 339 (1992)
- [70] *Magnetic field induced Anderson localization in a strongly anisotropic conductor,*  
N. Dupuis and G. Montambaux,  
Phys. Rev. Lett. **68**, 357 (1992)
- [71] *Conductance and statistical properties of metallic spectra,*  
E. Akkermans and G. Montambaux,  
Phys. Rev. Lett. **68**, 642 (1992)
- [72] *Courants permanents,*  
H. Bouchiat, G. Montambaux and B. Reulet,  
Pour la Science **179** (1992)
- [73] *Remark on the perturbative evaluation of the thermodynamic potential of disordered conductors in the presence of electron interactions,*  
M.T. Béal-Monod and G. Montambaux,  
Phys. Rev B **46**, 7182 (1992)
- [74] *Localization and magnetic field in a quasi-1D conductor,*  
N. Dupuis and G. Montambaux,  
Phys. Rev **B 46**, 9603 (1992)
- [75] *Nonlinear orbital magnetic response in isolated quantum dots,*  
B.I. Alt'shuler, Y. Gefen, Y. Imry and G. Montambaux,  
Phys. Rev. **B 47**, 10335 (1993)

- [76] *Quantum chaos in spin-fermions models*,  
G. Montambaux, D. Poilblanc, J. Bellissard and C. Sire,  
Phys. Rev. Lett. **70**, 497 (1993)
- [77] *Localization and superconductivity in a quasi-1D conductor in a magnetic field*,  
N. Dupuis and G. Montambaux,  
Synth. Met. **55**, 2853 (1993)
- [78] *Quasi-one-dimensional superconductors in strong magnetic field*,  
N. Dupuis, G. Montambaux and C. de Melo,  
Phys. Rev. Lett. **70**, 2613 (1993)  
Physica **B 194**, 1983 (1994)  
J. Physique IV, **C 2**, 311 (1993)
- [79] *Poisson versus GOE behavior in integrable and non-integrable quantum hamiltonians*,  
D. Poilblanc, T. Ziman, F. Mila, G. Montambaux and J. Bellissard,  
Europhys. Lett. **22**, 537 (1993)
- [80] *Three-dimensional superconducting networks in a magnetic field*,  
Y. Hasegawa, M. Kohmoto and G. Montambaux,  
Phys. Rev. **B 48**, 1119 (1993)
- [81] *Phase boundaries of three-dimensional superconducting networks in a magnetic field*,  
Y. Hasegawa, M. Kohmoto and G. Montambaux, Physica **201**, 259 (1994) (1993)
- [82] *Persistent currents in one-dimensional disordered rings of interacting electrons*,  
G. Bouzerar, D. Poilblanc and G. Montambaux,  
Phys. Rev. **B 49**, 8258 (1994)
- [83] *Magnetic response of disordered ballistic quantum dots*,  
Y. Gefen, D. Braun and G. Montambaux,  
Phys. Rev. Lett. **73**, 154 (1994)
- [84] *Superconductivity of quasi-one-dimensional conductors at high magnetic field*,  
N. Dupuis and G. Montambaux,  
Phys. Rev. **B 49**, 8993 (1994)
- [85] *Universal spectral correlations in diffusive quantum systems*,  
D. Braun and G. Montambaux,  
Phys. Rev. **B 50**, 7776 (1994)
- [86] *Motion of energy levels in diffusive electron systems*,  
D. Braun, G. Montambaux and A. Kamenev,  
in "Coulomb and interference effects in small electronic structures, D.C. Glatli, M. Sanquer and J. Trân  
Thanh Vân eds, p. 131
- [87] *Magnetization of disordered ballistic quantum billiards*,  
D. Braun, Y. Gefen and G. Montambaux,  
Ann. Phys. **3**, 467 (1994)



- [88] *Spectral correlations from the metal to the mobility edge*,  
D. Braun and G. Montambaux,  
Phys. Rev. B **52**, 13903 (1995)
- [89] **Mesoscopic Quantum Physics**,  
E. Akkermans, G. Montambaux, J.-L. Pichard and J. Zinn-Justin eds.,  
Les Houches Summer School, Session LXI, Elsevier Science 1995
- [90] *Persistent current of interacting electrons: a simple Hartree-Fock picture*,  
G. Montambaux,  
J. Physique (France) **6**, 1 (1996)
- [91] *What is the Thouless energy of a ballistic system?*  
A. Altland, Y. Gefen and G. Montambaux  
Phys. Rev. Lett. **76**, 1130 (1996)
- [92] *Phase diagram for charge density waves in a magnetic field*,  
D. Zanchi, A. Bjelis and G. Montambaux,  
Phys. Rev **B 53**, 1240 (1996)
- [93] *Sign reversals of the quantum Hall effect in quasi-1D conductors*,  
D. Zanchi and G. Montambaux, Phys. Rev. Lett. **77**, 366 (1996)
- [94] *Density waves in a transverse electric field*,  
G. Montambaux,  
Phys. Rev. B **54**, 17273 (1996)
- [95] *The spectral correlation function at the metal-insulator transition*,  
D. Braun and G. Montambaux,  
in "Correlated Fermions and transport in mesoscopic structures", T. Martin, G. Montambaux and J. Trân Thanh Vân eds, 1996
- [96] **Correlated Fermions and Transport in Mesoscopic Structures**,  
T. Martin, G. Montambaux and J. Trân Thanh Vân eds. (Éditions Frontières 1996)
- [97] *Spectral correlations in disordered metals*,  
G. Montambaux,  
Les Houches Summer School on *Quantum Fluctuations*, Session LXIII, E. Giacobino, S. Reynaud and J. Zinn-Justin eds., Elsevier Science 1997, p. 387
- [98] *Curvatures and conductances, a numerical test of the Thouless conjecture*,  
D. Braun, E. Hofstetter, G. Montambaux and A. MacKinnon ,  
Phys. Rev. B. **55**, 7557 (1997)
- [99] *Magnetization of mesoscopic disordered networks*,  
M. Pascaud and G. Montambaux,  
Europhys. Lett. **37** 347 (1997)

- [100] *The Quantum Hall Effect in quasi-1D conductors*,  
G. Montambaux and D. Zanchi,  
ICSM 1996, Synth. Met. **86**, 2235 (1997)
- [101] *Spectral statistics of disordered metals in the presence of several Aharonov-Bohm fluxes*,  
G. Montambaux.  
Phys. Rev. B **55**, 12833 (1997)
- [102] *Thermodynamics and transport in mesoscopic disordered networks*,  
M. Pascaud and G. Montambaux,  
Phil. Mag. B **77**, 1203 (1998)
- [103] *Interference effects in mesoscopic disorder rings and wires*,  
M. Pascaud and G. Montambaux,  
Phys-USpekhi **41**, 182 (1998)
- [104] *Mesoscopic charge density wave in a magnetic flux*,  
G. Montambaux,  
Eur. Phys. Journ. B **1**, 377 (1998)
- [105] *Comment on "Peierls gap in mesoscopic ring threated by a magnetic flux*,  
G. Montambaux,  
Phys. Rev. Lett. **80**, 3417 (1998)
- [106] *Boundary conditions at the mobility edge*,  
B. Braun, G. Montambaux and M. Pascaud,  
Phys. Rev. Lett. **81** , 1062 (1998)
- [107] *Many-body statistics of interacting Fermions*,  
M. Pascaud and G. Montambaux,  
Ann. Phys. **7** , 406 (1998)
- [108] *The addition spectrum and Koopmans' theorem for disordered quantum dots*,  
P. Walker, G. Montambaux and Y. Gefen,  
Phys. Rev. B **60**, 2541 (1999)
- [109] *Density modulations and addition spectra of interacting electrons in disordered quantum dots*,  
P. Walker, Y. Gefen and G. Montambaux,  
Phys. Rev. Lett. **82**, 5329 (1999)
- [110] *Persistent currents on graphs*,  
M. Pascaud and G. Montambaux,  
Phys. Rev. Lett. **82**, 4512 (1999)
- [111] *Comment on Level Statistics of quantum dots coupled to reservoirs*,  
M. Pascaud and G. Montambaux,  
Phys. Rev. Lett., **83**, 1076 (1999)

- [112] *Coulomb blockade fluctuations in disordered quantum dots*,  
P. Walker, G. Montambaux and Y. Gefen ,  
Proceedings of The Rencontres de Moriond 99, "Quantum Physics at the Mesoscopic Scale", C. Glattli,  
M. Sanquer and J. Trần Thanh Vân eds., p. 307 (EDPSciences, 2000)
- [113] *Pauli and orbital effects of magnetic field on charge density waves*,  
A. Bjelis, D. Zanchi and G. Montambaux,  
J. Physique IV, **9**, 203 (1999)
- [114] *A few properties of disordered conductors*,  
G. Montambaux,  
Proceedings of international workshop on "superconductivity, magnetoresistive materials and strongly correlated quantum systems", p. 207, Vietnam National University Press (1999)
- [115] *Spectral determinant on graphs*,  
E. Akkermans, A. Comtet, J. Desbois, G. Montambaux and C. Texier,  
Ann. Phys. **284**, 10 (2000)
- [116] *Transmission through quantum networks*,  
J. Vidal, G. Montambaux and B. Douçot ,  
Phys. Rev. B **62**, R16294 (2000)
- [117] *Coherent multiple scattering in disordered media*,  
E. Akkermans and G. Montambaux,  
"Waves and Imaging Through Complex Media", ed. by P. Sebbah (Kluwer Academic Publishers, Dordrecht, 2001)
- [118] *Landau diamagnetism and magnetization of interacting diffusive conductors*,  
G. Montambaux,  
Phys. Rev. Lett. **86**, 4640 (2001)
- [119] *Boundary Conditions, the Critical Conductance Distribution, and One-Parameter Scaling*,  
D. Braun, E. Hofstetter, G. Montambaux and A. MacKinnon  
Phys. Rev. B **64**, 155107 (2001)
- [120] *Mesoscopic physics on graphs*,  
G. Montambaux,  
Physics-Uspekhi **44**, 12 (2001)
- [121] **Electronic correlations: from meso- to nanophysics**,  
T. Martin, G. Montambaux and J. Trần Thanh Vân eds. (EDPSciences, 2001)
- [122] *Universal scrambling properties of spectra and wave functions in disordered interacting systems*,  
F. Piéchon and G. Montambaux,  
"Electronic correlations: from meso- to nanophysics", p.381, T. Martin, G. Montambaux and J. Trần  
Thanh Vân eds., (EDPSciences, 2001)
- [123] *Scattering theory on graphs*,  
C. Texier and G. Montambaux,  
J. Phys. A **34**, 10307 (2001)

- [124] *Experimental and theoretical investigations on Aharonov-Bohm cages*,  
C. Naud, G. Faini, D. Mailly, J. Vidal, B. Douçot, G. Montambaux, A. Wieck and D. Reuter,  
"Electronic correlations: from meso- to nanophysics", p. 255, T. Martin, G. Montambaux and J. Trân  
Thanh Vân eds., (EDPSciences, 2001)
- [125] *Aharonov-Bohm cages in the GaAlAs/GaAs system*,  
C. Naud, G. Faini, D. Mailly, J. Vidal, B. Douçot, G. Montambaux, A. Wieck and D. Reuter,  
Physica E **12**, 190 (2002)
- [126] *Isolated hybrid normal/superconducting ring in a magnetic flux: From persistent current to Josephson  
current*,  
J. Cayssol, T. Kontos and G. Montambaux,  
Phys. Rev. **B 67**, 184508 (2003)
- [127] *Coherent effects in the multiple scattering of light in random media*,  
A. Akkermans and G. Montambaux,  
"Wave scattering in complex media: From theory to applications", B. Van Tiggelen and S. Skipetrov eds,  
vol. 107, NATO Science Series II (Kluwer 2003)
- [128] *Les cages d'Aharonov-Bohm*,  
C. Naud, G. Faini, D. Mailly, J. Vidal, R. Mosseri, B. Douçot and G. Montambaux,  
Images de la Physique 2003-2004 , p. 59, CNRS
- [129] *Mesoscopic physics of photons*,  
A. Akkermans and G. Montambaux,  
J. Opt. Soc. Am B **21**, 101 (2004)
- [130] *Quantum transport in disordered conductors*,  
G. Montambaux and A. Akkermans,  
"Understanding carbon nanotubes: from basics to applications", Lecture Notes in Physics, Vol. 677, A.  
Loiseau, P. Launois, P. Petit, S. Roche, J.P. Salvetat Eds. (Springer Verlag-Frontiers in Physics, 2006)
- [131] *Weak localization in multiterminal networks of diffusive wires*,  
C. Texier and G. Montambaux,  
Phys. Rev. Lett. **92**, 186801 (2004)
- [132] *Direct measurement of the phase coherence length in a GaAs/GaAlAs square network*,  
M. Ferrier, L. Angers, A. C. H. Rowe, S. Guéron, H. Bouchiat, C. Texier, G. Montambaux and D. Mailly,  
Phys. Rev. Lett. **93**, 246804 (2004)
- [133] *Non exponential quasiparticle decay and phase relaxation in low dimensional conductors*,  
G. Montambaux and E. Akkermans,  
Phys. Rev. Lett. **95**, 016403 (2005)
- [134] *Exchange induced ordinary reflection in a single-channel superconductor-ferromagnet-superconductor junction*,  
J. Cayssol and G. Montambaux,  
Phys. Rev. B **70**, 224520 (2004)

- [135] *Incomplete Andreev reflection reflection in a clean superconductor-ferromagnet-superconductor junction*,  
J. Cayssol and G. Montambaux,  
Phys. Rev. B **71**, 012507 (2005)
- [136] *Non exponential relaxations in disordered conductors*  
G. Montambaux and E. Akkermans,  
in "Quantum information and decoherence in nanosystems", D.C. Glattli, M. Sanquer and J. Trân Thanh Vân eds, p. 253 (Rencontres de Moriond, The Gioi publishers, 2004)
- [137] *How to increase a transmission with weak-localisation ? a geometrical effect*,  
C. Texier and G. Montambaux,  
in "Quantum information and decoherence in nanosystems", D.C. Glattli, M. Sanquer and J. Trân Thanh Vân eds, p. 279 (Rencontres de Moriond, The Gioi publishers, 2004)
- [138] *Hybrid normal-superconducting rings*,  
J. Cayssol and G. Montambaux,  
in "Quantum information and decoherence in nanosystems", D.C. Glattli, M. Sanquer and J. Trân Thanh Vân eds, p. 225 (Rencontres de Moriond, The Gioi publishers, 2004)
- [139] *Incomplete Andreev reflection in a clean SFS junction*,  
J. Cayssol and G. Montambaux,  
in "Quantum information and decoherence in nanosystems", D.C. Glattli, M. Sanquer and J. Trân Thanh Vân eds, p. 229 (Rencontres de Moriond, The Gioi publishers, 2004)
- [140] **Physique mésoscopique des électrons et des photons**,  
**E. Akkermans and G. Montambaux**,  
**640 pages, collection Savoirs Actuels, CNRS Editions, EDPSciences (2004)**
- [141] *Quantum oscillations in mesoscopic rings and anomalous diffusion*,  
C. Texier and G. Montambaux,  
J. Phys. A **38**, 3455 (2005)
- [142] *Dephasing and electron-electron interaction in a ring*,  
C. Texier and G. Montambaux,  
Phys. Rev. B **72**, 115 327 (2005)
- [143] **Nanophysics : coherence and transport**,  
H. Bouchiat, S. Guéron, Y . Gefen, G. Montambaux and J. Dalibard eds.,  
Les Houches Summer School, Session LXXXI, Elsevier Science 2005
- [144] *Mesoscopic scattering of spin s particles*,  
C. A. Mueller, C. Miniatura, E. Akkermans and G. Montambaux,  
J. Phys. A **38**, 7807 (2005)
- [145] *Incomplete Andreev reflection in a clean SFS junction*,  
J. Cayssol and G. Montambaux,  
Moscow International Symposium on Magnetism, June 2005,  
J.M.M.M. **300**, 94 (2006)

- [146] *Dimensional crossover in quantum networks : from macroscopic to mesoscopic physics*,  
F. Schopfer, François Mallet, D. Mailly, C. Texier, G. Montambaux, L. Saminadayar and C. Bäuerle,  
Phys. Rev. Lett. **98**, 026807 (2007)
- [147] *Coherence and interactions in diffusive systems*  
Gilles Montambaux,  
42 pages, Lectures notes for the "International School on Physics of Zero and One Dimensional Nanoscopic Systems", Saha Institute of Nuclear Physics, Calcutta, India, 1-9 February, 2006  
Springer Series in Solid-State Sciences , Vol. 156, p. 187 S.N. Karmakar, S.K. Maiti, C. Jayeeta eds. (2007)
- [148] **Mesoscopic Physics of Electrons and Photons,**  
**E. Akkermans and G. Montambaux,**  
**Cambridge University Press, April 2007**
- [149] *Magnetoconductance oscillations in metallic rings and decoherence due to electron-electron interactions*,  
C. Texier and G. Montambaux,  
Proceedings of "Nanophysics: from fundamentals to applications", VIth rencontres du Vietnam
- [150] *Altshuler-Aronov correction to the conductivity of a large metallic square network*,  
C. Texier and G. Montambaux,  
Phys. Rev. B **76**, 094202 (2007)
- [151] *Conservation of energy in coherent backscattering of light*,  
S. Fiebig, C.M. Aegerter, W. Bührer, M. Störzer, E. Akkermans, G. Montambaux and G. Maret,  
Europhys. Lett. **81**, 64004 (2008)
- [152] *A new magnetic field dependence of Landau levels*,  
P. Dietl, F. Piéchon and G. Montambaux  
Phys. Rev. Lett. **100**, 236405 (2008)
- [153] *Interference pattern of a long diffusive Josephson junction*,  
G. Montambaux  
unpublished, <http://arxiv.org/abs/0707.0411>
- [154] *Geometrical dependence of decoherence by electronic interactions in a GaAs/GaAlAs square network*,  
M. Ferrier, A.C. Rowe, S. Guéron, H. Bouchiat, C. Texier and G. Montambaux,  
Phys. Rev. Lett. **100**, 146802 (2008)
- [155] *Proximity DC squids in the long junction limit*,  
L. Angers, F. Chiodi, G. Montambaux, M. Ferrier, S. Guéron, H. Bouchiat and J.C. Cuevas,  
Phys. Rev. B **77**, 165408 (2008)
- [156] *Tilted anisotropic Dirac cones in quinoid-type grapheme and  $\alpha - (BEDT - TTF)_2I_3$* ,  
M. O. Goerbig, J.-N. Fuchs, G. Montambaux and F. Piéchon,  
Phys. Rev. B **78**, 045415 (2008)
- [157] *Semiclassical analysis of edge state energies in the integer quantum Hall effect*,  
Y. Avishai and G. Montambaux,  
Eur. Phys. J. B **66**, 41 (2008)

- [158] *Remarks on the tight-binding model of graphene*,  
C. Bena and G. Montambaux  
New J. Phys. **11**, 095003 (2009)
- [159] *Ensemble averaging in metallic quantum networks*,  
F. Mallet, F. Schopfer, J. Ericsson, L. Saminadayar, C. Bäuerle, D. Mailly, C. Texier and G. Montambaux,  
in *Controllable quantum states*, Proceedings of the International Symposium, NTT Basic Res Laboratories,  
Japan (March 2006), H. Takayanagi, J. Nitta and H. Nakano eds., (World Scientific 2009)
- [160] *Electric-field induced lifting of the valley degeneracy in  $\alpha - (BEDT - TTF)_2I_3$  Landau Levels*,  
M.O. Goerbig, J.-N. Fuchs, G. Montambaux and F. Piéchon,  
Europhys. Lett. **85**, 57005 (2009)
- [161] *Quantum oscillations and decoherence due to electron-electron interaction in metallic networks and hollow cylinders*,  
C. Texier, P. Delplace and G. Montambaux,  
Phys. Rev. B **80**, 205413 (2009)
- [162] *Merging of Dirac points in a two-dimensional crystal*,  
G. Montambaux, F. Piéchon, J.-N. Fuchs and M.O. Goerbig,  
Phys. Rev. B **80**, 153412 (2009)
- [163] *A universal Hamiltonian for the motion and the merging of Dirac points in a two-dimensional crystal*,  
G. Montambaux, F. Piéchon, J.-N. Fuchs and M. O. Goerbig,  
Eur. Phys. J. B **72**, 509 (2009)
- [164] *A semi-Dirac point in the Hofstadter spectrum*,  
P. Delplace and G. Montambaux,  
Phys. Rev. B **82**, 035438 (2010)
- [165] *WKB analysis of edge states in graphene in a strong magnetic field*,  
P. Delplace and G. Montambaux,  
Phys. Rev. B **82**, 205412 (2010)
- [166] *Topological Berry phase and semiclassical quantization of cyclotron orbits for two dimensional electrons in coupled band models*,  
J.-N. Fuchs, F. Piéchon, M. O. Goerbig and G. Montambaux,  
Eur. Phys. J. B **77**, 351 (2010)
- [167] *Semiclassical quantization of skipping orbits*,  
G. Montambaux  
Eur. Phys. J. B **79**, 215 (2011)
- [168] *Magnetic-field dependent magnetoresistance in disordered graphene: The role of pseudospin and dimensionality effects unraveled*,  
F. Ortmann, A. Cresti, G. Montambaux, and S. Roche  
Euro. Phys. Lett. **94** 47006 (2011)

- [169] *Topologically protected zero modes in twisted bilayer graphene*,  
R. de Gail, M.O. Goerbig, F. Guinea, G. Montambaux and A.H. Castro Neto,  
Phys. Rev. B **84**, 045436 (2011)
- [170] *Emergence of Dirac electron pair in charge ordered state of organic conductor  $\alpha$ -(BEDT-TTF) $_2$ I $_3$* ,  
A. Kobayashi, Y. Suzumura, F. Piéchon and G. Montambaux,  
Phys. Rev. B **84**, 075 540 (2011)
- [171] *Zak phase and the existence of edge states in graphene*,  
P. Delplace, D. Ullmo, and G. Montambaux  
Phys. Rev. B **84**, 195452 (2011)
- [172] *Manipulation of Dirac points in graphene-like crystals*,  
R. de Gail, J.-N. Fuchs, M. O. Goerbig, F. Piéchon and G. Montambaux,  
Physica B: Cond. Mat. **407**, 1948 (2012)
- [173] *Bloch-Zener oscillations across a merging transition of Dirac points*,  
L.-K. Lim, J.-N. Fuchs and G. Montambaux  
Phys. Rev. Lett. **108**, 175303 (2012)
- [174] *Geometry-related magnetic interference patterns in long SNS Josephson junctions*,  
F. Chiodi, M. Ferrier, S. Guéron, J. C. Cuevas, G. Montambaux, F. Fortuna, A. Kasumov and H. Bouchiat  
Phys. Rev. B **86**, 064510 (2012)
- [175] *Magnetic spectrum of trigonally warped bilayer graphene - semiclassical analysis, zero modes, and topological winding numbers*,  
R. de Gail, M. O. Goerbig and G. Montambaux  
Phys. Rev. B **86**, 045407 (2012)
- [176] *An equivalence between monolayer and bilayer honeycomb lattices*,  
Gilles Montambaux  
Eur. Phys. J. B **85**, 375 (2012)
- [177] *Ergodic vs diffusive decoherence in mesoscopic devices*,  
T. Capron, C. Texier, G. Montambaux, D. Mailly, A. D. Wieck, C. Bäuerle and L. Saminadayar,  
Phys. Rev. B **87**, 041307(R) (2013)
- [178] *Inter-band tunneling near the merging transition of Dirac cones*,  
J.-N. Fuchs, L.-K. Lim and G. Montambaux,  
Phys. Rev. A **86**, 063613 (2012)
- [179] *Topological transition of Dirac points in a microwave experiment*,  
M. Bellec, U. Kuhl, G. Montambaux and F. Mortessagne,  
Phys. Rev. Lett. **110**, 033902 (2013)
- [180] *Tight-binding couplings in microwave artificial graphene*,  
M. Bellec, U. Kuhl, G. Montambaux and F. Mortessagne,  
Phys. Rev. B **88**, 115437 (2013)



- [181] *From dia- to paramagnetic orbital susceptibility of Dirac cones*,  
A. Raoux, M. Morigi, J.-N. Fuchs, F. Piéchon and G. Montambaux,  
Phys. Rev. Lett. **112**, 026402 (2014)
- [182] *Measure of Diracness in two-dimensional semiconductors*,  
M.-O. Goerbig, F. Piéchon and G. Montambaux,  
EuroPhys. Lett. **105**, 57005 (2014)
- [183] *Mass and chirality inversion of a Dirac cone pair in Stückelberg interferometry*,  
L.-K. Lim, J.-N. Fuchs and G. Montambaux  
Phys. Rev. Lett. **112**, 155302 (2014)
- [184] *Manipulation of edge states in microwave artificial graphene*,  
Matthieu Bellec, Ulrich Kuhl, Gilles Montambaux and Fabrice Mortessagne,  
New J. Phys. **16**, 113023 (2014)
- [185] *Dirac Fermions in condensed matter and beyond*,  
M. O. Goerbig and G. Montambaux,  
"Matière de Dirac", Séminaire Poincaré **18**, 23 (2014); in "Dirac Matter", B. Duplantier, V. Rivasseau,  
and J.-N. Fuchs eds., Progress in Mathematical Physics **71**, 25 (2017)
- [186] *Orbital magnetism of coupled bands models*,  
A. Raoux, F. Piéchon, J.N. Fuchs and G. Montambaux,  
Phys. Rev. B **91**, 085120 (2015)
- [187] *Geometric phase in Stückelberg interferometry*,  
L.-K. Lim, J.-N. Fuchs and G. Montambaux,  
Phys. Rev. A **91**, 042119 (2015)
- [188] *Tunable orbital susceptibility in alpha-T<sub>3</sub> tight-binding models*,  
F. Piéchon, J.-N. Fuchs, A. Raoux and G. Montambaux,  
Journal of Physics: Conference Series **603**, 012001 (2015)
- [189] *Four-terminal resistances in mesoscopic networks of metallic wires: Weak localisation and correlations*,  
Christophe Texier and Gilles Montambaux,  
Contribution to a special issue in Physica E "Frontiers in quantum electronic transport - in memory of  
Markus Büttiker",  
Physica E **75**, 33 (2016)
- [190] *Rapid magnetic oscillations and magnetic breakdown in quasi-1D conductors*,  
G. Montambaux and D. Jérôme,  
Condensed matter in the 21st century, the legacy of Jacques Friedel, C. R. Physique **17**, 376 (2016)
- [191] *Geometry of Bloch states probed by Stückelberg interferometry*,  
L.-K. Lim, J.-N. Fuchs and G. Montambaux,  
Phys. Rev. A **92**, 063627 (2015)
- [192] *Diffusion of Dirac fermions across a topological merging transition in two dimensions*,  
P. Adroguer, D. Carpentier, G. Montambaux and E. Orignac,  
Phys. Rev. B **93**, 125113 (2016)

- [193] *Chemical potential asymmetry and quantum oscillations in insulators*,  
H.K. Pal, F. Piéchon, J.-N. Fuchs, M.O. Goerbig and G. Montambaux,  
Phys. Rev. B **94**, 125140 (2016)
- [194] *Geometric orbital susceptibility: quantum metric without Berry curvature*,  
F. Piéchon, A. Raoux, J.-N. Fuchs and G. Montambaux,  
Phys. Rev. B **94**, 134423 (2016)
- [195] *Orbital edge states in a photonic honeycomb lattice*,  
M. Milićević, T. Ozawa, G. Montambaux, I. Carusotto, E. Galopin, A. Lemaître, L. Le Gratiet, I. Sagnes,  
J. Bloch and A. Amo,  
Phys. Rev. Lett. **118**, 1079 (2017)
- [196] *Generalized Stefan-Boltzmann law*,  
Gilles Montambaux,  
Foundations of Physics **48**, 395 (2018)
- [197] *Landau levels, response functions and magnetic oscillations from a generalized Onsager relation*,  
J.N. Fuchs, F. Piéchon and G. Montambaux,  
SciPost Phys. **4**, 024 (2018)
- [198] *Winding vector: how to annihilate two Dirac points with the same charge*,  
G. Montambaux, L.-K. Lim, J.-N. Fuchs and F. Piéchon,  
Phys. Rev. Lett. **121**, 256402 (2018)
- [199] *Artificial graphenes: Dirac matter beyond condensed matter*,  
Gilles Montambaux,  
C. R. Physique **19**, 285 (2018)
- [200] *Tilted and type-III Dirac cones emerging from flat bands in photonic orbital graphene*,  
M. Milićević, G. Montambaux, T. Ozawa, O. Jamadi, B. Real, I. Sagnes, A. Lemaître, L. Le Gratiet, A.  
Harouri, J. Bloch and A. Amo,  
Phys. Rev. X **9**, 031010 (2019)
- [201] *Dirac points emerging from flat bands in Lieb-kagomé lattices*,  
M. Milićević, G. Montambaux, T. Ozawa, O. Jamadi, B. Real, I. Sagnes, A. Lemaître, L. Le Gratiet, A.  
Harouri, J. Bloch, A. Amo,  
Phys. Rev. B **101**, 045131 (2020)
- [202] *Semi-Dirac Transport and Anisotropic localization in Polariton Honeycomb Lattices*,  
M. Milićević, G. Montambaux, T. Ozawa, O. Jamadi, B. Real, I. Sagnes, A. Lemaître, L. Le Gratiet, A.  
Harouri, J. Bloch, A. Amo,  
Phys. Rev. Lett. **125**, 186601 (2020)
- [203] *Detection of graphene's divergent orbital diamagnetism at the Dirac point*,  
J. Vallejo, N.J. Wu, C. Fermon, M. Pannetier-Lecoœur, T. Wakamura, K. Watanabe, T. Tanigushi, T.  
Pellegrin, A. Bernard, S. Daddinounou, V. Bouchiat, S. Guéron, M. Ferrier, G. Montambaux, H. Bouchiat,  
Science **374**, 1399 (2021)

- [204] *Paramagnetic singularities of the orbital magnetism in graphene with a moiré potential*,  
J. Vallejo Bustamante, R. Ribeiro-Palau, C. Fermon, M. Pannetier-Lecoœur, K. Watanabe, T. Tanigushi,  
R. Deblock, S. Guéron, M. Ferrier, J. N. Fuchs, G. Montambaux, F. Piéchon, H. Bouchiat,  
Phys. Rev. Lett. **131**, 201 (2023)