

List of Publications 2011

- [1] E. Abou-Hamad, P. Bontemps, and G. L. J. A. Rikken, “NMR in pulsed magnetic field,” *Solid State Nuclear Magnetic Resonance* **40**, 42–44 (2011).
- [2] A. Audouard, F. Duc, D. Vignolles, R. B. Lyubovskii, L. Vendier, G. V. Shilov, E. I. Zhilyaeva, R. N. Lyubovskaya, and E. Canadell, “Temperature- and pressure-dependent metallic states in (BEDT-TTF)₈[Hg₄Br₁₂(C₆H₅Br)₂],” *Physical Review B* **84**, 045101 (2011).
- [3] A. B. A. Baranga, R. Battesti, M. Fouché, C. Rizzo, and G. L. J. A. Rikken, “Observation of the inverse cotton-mouton effect,” *Europhysics Letters* **94**, 44005 (2011).
- [4] Paul Berceau, Rémy Battesti, Mathilde Fouché, Paul Frings, Marc Nardone, Oliver Portugall, Geert Rikken, and Carlo Rizzo, “Quantum vacuum magnetic birefringence,” *Hyperfine Interactions*, 1–6 (2011), 10.1007/s10751-011-0517-z.
- [5] P. Berceau, R. Battesti, M. Fouché, and C. Rizzo, “The vacuum magnetic birefringence experiment: a test for quantum electrodynamics,” *Canadian Journal of Physics* **89**, 153–158 (2011).
- [6] J. Chang, N. Doiron-Leyraud, F. Laliberte, R. Daou, D. LeBoeuf, B. J. Ramshaw, R. X. Liang, D. A. Bonn, W. N. Hardy, C. Proust, I. Sheikin, K. Behnia, and L. Taillefer, “Nernst effect in the cuprate superconductor YBa₂Cu₃O_y: Broken rotational and translational symmetries,” *Physical Review B* **84**, 014507 (2011).
- [7] T. A. Dauzhenka, V. K. Ksenevich, I. A. Bashmakov, and J. Galibert, “Origin of negative magnetoresistance in polycrystalline SnO₂ films,” *Physical Review B* **83**, 165309 (2011).
- [8] O. Drachenko, S. Winnerl, H. Schneider, M. Helm, J. Wosnitza, and J. Leotin, “Compact magnetospectrometer for pulsed magnets based on infrared quantum cascade lasers,” *Review of Scientific Instruments* **82**, 033108 (2011).
- [9] X. Fabrèges, I. Mirebeau, S. Petit, P. Bonville, and A. A. Belik, “Frustration-driven magnetic order in hexagonal InMnO₃,” *Physical Review B* **84**, 054455 (2011).
- [10] V. Gasparov, L. Drigo, A. Audouard, D. Sun, C. Lin, S. Budko, P. Canfield, F. Wolff-Fabris, and J. Wosnitza, “Upper critical magnetic field in Ba_{0.68}K_{0.32}Fe₂As₂ and Ba(Fe_{0.93}Co_{0.07})₂As₂,” *Jetp Letters* **93**, 667–672 (2011).
- [11] V. Gavrilenko, S. Krishtopenko, and M. Goiran, “Electron-electron interaction and spin-orbit coupling in InAs/AlSb heterostructures with a two-dimensional electron gas,” *Semiconductors* **45**, 110–117 (2011).
- [12] M. Goiran, M. Millot, J. M. Poumirol, I. Gherasoiu, W. Walukiewicz, and J. Leotin, “Electron cyclotron effective mass in indium nitride (vol 96, 052117, 2010),” *Applied Physics Letters* **98**, 079903 (2011).
- [13] N. E. Hussey, R. A. Cooper, X. F. Xu, Y. Wang, I. Mouzopoulou, B. Vignolle, and C. Proust, “Dichotomy in the T-linear resistivity in hole-doped cuprates,” *Philosophical Transactions of The Royal Society A-mathematical Physical and Engineering Sciences* **369**, 1626–1639 (2011).
- [14] M. Jeong, F. Bert, P. Mendels, F. Duc, J. C. Trombe, M. A. de Vries, and A. Harrison, “Field-induced freezing of a quantum spin liquid on the kagome lattice,” *Physical Review Letters* **107**, 237201 (2011).
- [15] M. V. Kartsovnik, T. Helm, C. Putzke, F. Wolff-Fabris, I. Sheikin, S. Lepault, C. Proust, D. Vignolles, N. Bittner, W. Biberacher, A. Erb, J. Wosnitza, and R. Gross, “Fermi surface of the electron-doped cuprate superconductor Nd_{2-x}Ce_xCuO₄ probed by high-field magnetotransport,” *New Journal of Physics* **13**, 015001 (2011).
- [16] H. Katsuno, H. Ohta, O. Portugall, N. Ubrig, M. Fujisawa, F. Elmasry, S. Okubo, and Y. Fujiwara, “Energy structure of Er-2O center in GaAs:Er,O studied by high magnetic field photoluminescence measurement,” *Journal of Luminescence* **131**, 2294–2298 (2011).
- [17] S. S. Krishtopenko, V. I. Gavrilenko, and M. Goiran, “Theory of g-factor enhancement in narrow-gap quantum well heterostructures,” *Journal of Physics-condensed Matter* **23**, 385601 (2011).
- [18] V. K. Ksenevich, N. I. Gorbachuk, T. A. Dauzhenka, I. A. Bashmakov, N. A. Poklonski, and A. D. Wieck, “Ac-conductivity of thin polycrystalline tin dioxide films,” *Acta Physica Polonica A* **119**, 146–147 (2011).
- [19] A. Kumar, W. Escoffier, J. M. Poumirol, C. Faugeras, D. P. Arovas, M. M. Fogler, F. Guinea, S. Roche, M. Goiran, and B. Raquet, “Integer quantum hall effect in trilayer graphene,” *Physical Review Letters* **107**, 126806 (2011).
- [20] F. Laliberte, J. Chang, N. Doiron-Leyraud, E. Hassinger, R. Daou, M. Rondeau, B. J. Ramshaw, R. Liang, D. A. Bonn, W. N. Hardy, S. Pyon, T. Takayama, H. Takagi, I. Sheikin, L. Malone, C. Proust, K. Behnia, and Louis Taillefer, “Fermi-surface reconstruction by stripe order in cuprate superconductors,” *Nature Communications* **2**, 432 (2011).
- [21] V. N. Laukhin, A. Audouard, D. Vignolles, E. Canadell, T. G. Prokhorova, and E. B. Yagubskii, “Magnetoresistance oscillations up to 32 K in the organic metal β⁺-(ET)₄(H₃O)[Fe(C₂O₄)₃]C₆H₄Cl₂,” *Low Temperature Physics* **37**, 749–754 (2011).
- [22] D. LeBoeuf, N. Doiron-Leyraud, B. Vignolle, M. Sutherland, B. J. Ramshaw, J. Levallois, R. Daou, F. Laliberté, O. Cyr-Choinière, J. Chang, Y. J. Jo, L. Balicas, R. Liang, D. A. Bonn, W. N. Hardy, C. Proust, and L. Taillefer, “Lifshitz critical point in the cuprate superconductor YBa₂Cu₃O_y from high-field hall effect measurements,” *Physical Review B* **83**, 054506 (2011).
- [23] L. Malone, T. D. Matusda, A. Antunes, G. Knebel, V. Taufour, D. Aoki, K. Behnia, C. Proust, and J. Flouquet, “Thermoelectric evidence for high-field anomalies in the hidden order phase of URu₂Si₂,” *Physical Review B* **83**, 245117 (2011).
- [24] C. Mayer, Stéphane Gorsse, G. Ballon, R. Caballero-Flores, V. Franco, and B. Chevalier, “Tunable magnetocaloric effect in Gd-based glassy ribbons,” *Journal of Applied Physics* **110**, 053920 (2011).

- [25] M. Millot, N. Ubrig, J.-M. Poumirol, I. Gherasoiu, W. Walukiewicz, S. George, O. Portugall, J. Léotin, M. Goiran, and J.-M. Broto, “Determination of effective mass in InN by high-field oscillatory magnetoabsorption spectroscopy,” *Physical Review B* **83**, 125204 (2011).
- [26] P. Puech, S. Nanot, B. Raquet, J.-M. Broto, M. Millot, A.W. Anwar, E. Flahaut, and W. Bacsa, “Comparative raman spectroscopy of individual and bundled double wall carbon nanotubes,” *Physica Status Solidi B* **248**, 974–979 (2011).
- [27] B. J. Ramshaw, B. Vignolle, J. Day, R. X. Liang, W. N. Hardy, C. Proust, and D. A. Bonn, “Angle dependence of quantum oscillations in $\text{YBa}_2\text{Cu}_3\text{O}_{6.59}$ shows free-spin behaviour of quasiparticles,” *Nature Physics* **7**, 234–238 (2011).
- [28] R. Ribeiro, J. M. Poumirol, A. Cresti, W. Escoffier, M. Goiran, J. M. Broto, S. Roche, and B. Raquet, “Unveiling the Magnetic Structure of Graphene Nanoribbons,” *Physical Review Letters* **107**, 086601 (2011).
- [29] G. L. J. A. Rikken, “A new twist on spintronics,” *Science* **331**, 864–865 (2011).
- [30] G. L. J. A. Rikken and B. A. van Tiggelen, “Measurement of the Abraham Force and Its Predicted QED Corrections in Crossed Electric and Magnetic Fields,” *Physical Review Letters* **107**, 170401 (2011).
- [31] P. M. C. Rourke, I. Mouzopoulou, X. F. Xu, C. Panagopoulos, Y. Wang, B. Vignolle, C. Proust, E. V. Kurganova, U. Zeitler, Y. Tanabe, T. Adachi, Y. Koike, and N. E. Hussey, “Phase-fluctuating superconductivity in overdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$,” *Nature Physics* **7**, 455–458 (2011).
- [32] F. Rullier-Albenque, H. Alloul, and G. Rikken, “High-field studies of superconducting fluctuations in high- T_c cuprates: Evidence for a small gap distinct from the large pseudogap,” *Physical Review B* **84**, 014522 (2011).
- [33] P. Thakur, A. Kumar, S. Gautam, and K.H. Chae, “Electronic charge transfer in cobalt doped fullerene thin films and effect of energetic ion impacts by x-ray absorption spectroscopy,” *Thin Solid Films* **519**, 8401–8405 (2011).
- [34] V. Tripathi, K. Dhochak, B. A. Aronson, V. V. Rylkov, A. B. Davydov, B. Raquet, M. Goiran, and K. I. Kugel, “Charge inhomogeneities and transport in semiconductor heterostructures with a Mn δ -layer,” *Physical Review B* **84**, 075305 (2011).
- [35] N. Ubrig, P. Plochocka, P. Kossacki, M. Orlita, D. K. Maude, O. Portugall, and G. L. J. A. Rikken, “High-field magnetotransmission investigation of natural graphite,” *Physical Review B* **83**, 073401 (2011).
- [36] B. Vignolle, D. Vignolles, D. LeBoeuf, S. Lepault, B. Ramshaw, R. X. Liang, D. A. Bonn, W. N. Hardy, N. Doiron-Leyraud, A. Carrington, N. E. Hussey, L. Taillefer, and C. Proust, “Quantum oscillations and the Fermi surface of high-temperature cuprate superconductors,” *Comptes Rendus Physique* **12**, 446–460 (2011).
- [37] D. Vignolles, A. Audouard, V. N. Laukhin, E. Canadell, T. G. Prokhorova, and E. B. Yagubskii, “Quantum interference and shubnikov-de haas oscillations in β -(ET) $_4$ (H $_3$ O)[Fe(C $_2$ O $_4$) $_3$]C $_6$ H $_4$ Cl $_2$ under pressure,” *Synthetic Metals* **160**, 2467–2470 (2010).
- [38] G. H. Wagnière and G. L. J. A. Rikken, “Chirality and magnetism II: Free electron on an infinite helix, inverse Faraday effect and inverse magnetochiral effect,” *Chemical Physics Letters* **502**, 126–129 (2011).
- [39] Q. Zhang, W. Knafo, P. Adelmann, P. Schweiss, K. Grube, N. Qureshi, Th. Wolf, H. v. Löhneysen, and C. Meingast, “Complex magnetoelastic properties in the frustrated kagome-staircase compounds $(\text{Co}_{1-x}\text{Ni}_x)_3\text{V}_2\text{O}_8$,” *Physical Review B* **84**, 184429 (2011).
- [40] X. Q. Zhou, B. Schmidt, C. Proust, G. Gervais, L. N. Pfeiffer, K. W. West, and S. Das Sarma, “Quantum-Classical Crossover and Apparent Metal-Insulator Transition in a Weakly Interacting 2D Fermi Liquid,” *Physical Review Letters* **107**, 086804 (2011).