

# YONG P. CHEN: LIST OF PUBLICATIONS

## *In preparation:*

- P4. M. Junker, D. Dries, C. Welford, J. Hitchcock, Yong P. Chen and R. G. Hulet, “Photoassociation of  $^7\text{Li}$  near a Feshbach resonance”.
- P3. D. Dries, Yong P. Chen, M. Junker, C. Welford, J. Hitchcock and R. G. Hulet, “Tunable interaction and Feshbach resonance in a  $^7\text{Li}$  BEC”.
- P2. Yong P. Chen, R. M. Lewis, G. Sambandamurthy, L. W. Engel, D. C. Tsui, Z. H. Wang, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Transition between a 2D electron solid and fractional quantum Hall liquid near  $1/5$  Landau filling: spectroscopic evidence for a mixed phase”.
- P1. Yong P. Chen, R. M. Lewis, G. Sambandamurthy, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Pinning mode of the 2D Wigner crystal phase in high magnetic fields”.

## *Submitted:*

- S1. Yong P. Chen, J. Hitchcock, D. Dries, M. Junker, C. Welford and R. G. Hulet, “Phase coherence and superfluid-insulator transition in a disordered Bose-Einstein condensate”, arXiv:0710.5187 (2007)

## *Regular Journal Papers:*

- J12. Z. H. Wang, Yong P. Chen, L. W. Engel, D. C. Tsui, E. Tutuc and M. Shayegan, “Pinning modes and interlayer correlation in high magnetic field bilayer Wigner solids”, **Physical Review Letters** **99**, 136804 (2007)
- J11. Yong P. Chen, G. Sambandamurthy, Z. H. Wang, R. M. Lewis, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Melting of a 2D Quantum Electron Solid in High Magnetic Field”, **Nature Physics** **2**, 452 (2006).
- J10. Yong P. Chen, “Pinned Bilayer Wigner Crystals with Pseudospin Magnetism”, **Physical Review B** **73**, 115314 (2006).
- J9. E. Diez, Y. P. Chen, S. Avesque, M. Hilke, E. Peled, D. Shahar, J. M. Cerveró, D. L. Sivco and A. Y. Cho, “Two Dimensional Electron Gas in InGaAs/InAlAs quantum wells”, **Applied Physics Letters** **88**, 052107 (2006).
- J8. R. M. Lewis, Yong P. Chen, L. W. Engel, D. C. Tsui, L. N. Pfeiffer, and K. W. West, “Microwave resonance of the reentrant insulating quantum Hall phases in the 1st excited Landau Level”, **Physical Review B, Rapid Communications** **71**, 081301(R) (2005).
- J7. Yong P. Chen, R. M. Lewis, L. W. Engel, D. C. Tsui, P. D. Ye, Z. H. Wang, L. N. Pfeiffer, and K. W. West, “Evidence for Two Different Solid Phases of Two Dimensional Electrons in High Magnetic Fields”, **Physical Review Letters** **93**, 206805 (2004).
- J6. R. M. Lewis, Yong P. Chen, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Evidence of a First Order Phase Transition Between the Wigner Crystal and Bubble Phases of 2D Electrons in Higher Landau Levels”, **Physical Review Letters** **93**, 176808 (2004).

- J5. E. Peled, Y. Chen, E. Diez, D. C. Tsui, D. Shahar, D. L. Sivco, and A. Y. Cho, “Symmetries of the Resistance of Mesoscopic Samples in the Quantum Hall Regime”, **Physical Review B, Rapid Communications** **69**, 241305(R) (2004).
- J4. Yong Chen, R. M. Lewis, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Microwave Resonance of the 2D Wigner Crystal Around Integer Landau Fillings”, **Physical Review Letters** **91**, 016801 (2003).
- J3. E. Peled, D. Shahar, Y. Chen, E. Diez, D. L. Sivco, and A. Y. Cho, “Near Perfect Correlation of the Resistance Components of Mesoscopic Samples at the Quantum Hall Regime”, **Physical Review Letters** **91**, 236802 (2003).
- J2. E. Peled, D. Shahar, Y. Chen, D. L. Sivco, and A. Y. Cho, “The Quantized Hall Effect in the Presence of Resistance Fluctuations”, **Physical Review Letters** **90**, 246802 (2003).
- J1. Chen, Yong, “Structures of Non-Hausdorff Linear Topological Spaces”, **Journal of Xi’an Jiaotong University**, **29**, No. 10, 114 (1995).

**Conference Papers:**

- C9. L. W. Engel, R.M. Lewis, Y. P. Chen, G. Sambandamurthy, D. C. Tsui, L. N. Pfeiffer and K. W. West, “Microwave spectroscopy of electron solid and stripe phases in higher Landau levels”, *Proceedings of the 16th International Conference on Electronic Properties of Two-Dimensional Systems*, Albuquerque, New Mexico (2005), **Physica E: Low Dimensional Systems and Nanostructures** **34**, 53 (2006).
- C8. G. Sambandamurthy, Z. H. Wang, R. M. Lewis, Yong P. Chen, L. W. Engel, D. C. Tsui, L. N. Pfeiffer, and K. W. West, “Pinning mode resonances of new phases of 2D electron systems in high magnetic fields”, (invited review paper for “*Emergent phenomena in quantum Hall systems*”), **Solid State Communications** **140**, 100 (2006).
- C7. R.M. Lewis, Y. P. Chen, G. Sambandamurthy, L. W. Engel, D. C. Tsui, L. N. Pfeiffer and K. W. West, “Recent results in microwave and rf spectroscopy of two-dimensional electron solids”, *Proceeding of International Workshop on Electronic Crystals*, Corsica, France (2005), **Journal de Physique IV** **131**, 241 (2005).
- C6. E. Peled, D. Shahar, Y. Chen, E. Diez, D. L. Sivco, and A. Y. Cho, “Quantum Hall transitions in mesoscopic samples”, *Proceedings of the 16th International Conference on High Magnetic Fields in Semiconductor Physics*, Tallahassee, Florida (2004), **International Journal of Modern Physics B**, **18**, 3575 (2004).
- C5. Yong P. Chen, Zhihai Wang, R. M. Lewis, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Microwave Resonances in the Reentrant Insulating Phases around  $\nu = 1/3$  and  $\nu = 1/5$  in Two Dimensional Electron Systems”, *Proceedings of the 16th International Conference on High Magnetic Fields in Semiconductor Physics*, Tallahassee, Florida (2004), **International Journal of Modern Physics B**, **18**, 3553 (2004).
- C4. R. M. Lewis, Yong Chen, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Wigner Crystallization about  $\nu = 3$ ”, *Proceedings of the 15th International Conference on Electronic Properties of Two Dimensional Systems*, Nara, Japan (2003), **Physica E: Low Dimensional Systems and Nanostructures** **22**, 104 (2004).

- C3. R. M. Lewis, Yong Chen, L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Measurements of the Temperature Dependence of the Bubble Phase”, *Proceedings of the 15th International Conference on Electronic Properties of Two Dimensional Systems*, Nara, Japan (2003), **Physica E: Low Dimensional Systems and Nanostructures** **22**, 119 (2004).
- C2. P. D. Ye, Yong Chen, L. W. Engel, D. C. Tsui, R. M. Lewis, L. N. Pfeiffer, and K. W. West, “Domain Size vs Landau Filling for High Magnetic Field Wigner Crystal”, *Proceedings of the 15th International Conference on High Magnetic Fields in Semiconductor Physics*, Oxford, England (2002).
- C1. Yong Chen and Jacob White, “A Quadratic Method for Nonlinear Model Order Reduction”, *Proceedings of the 3rd International Conference on Modeling and Simulation of Microsystems, Semiconductors, Sensors and Actuators*, San Diego, California (2000).

**Theses:**

- T2. “Quantum Solids of Two Dimensional Electrons in Magnetic Fields”, PhD Thesis, Princeton University (Nov. 2005) [available from: <http://www.princeton.edu/~yongchen/thesis.pdf>]
- T1. “Model Order Reduction for Nonlinear Systems”, MS Thesis, MIT (Sept. 1999) [available from: <http://citeseer.ist.psu.edu/chen99model.html>]