

## Publications and Preprints

1. K. Sengupta and S. K. Ghatak, *The effect of hybridization on superconductivity in quasi-two-dimensional systems*, **Physics Letters A** **186**, 419 (1994).
2. K. Sengupta and S. K. Ghatak, *Role of band mixing in superconductivity in two-dimensional systems*, **Indian J. Phys.** **69A**, 203 (1995).
3. S. Wu, S. G. Kaplan, M. Quijada, K. Sengupta, and H. D. Drew, *Improved Circular Polarizer for far-infrared light-pipe systems*, **Review of Scientific Instruments** **66**, 5559 (1995).
4. K. Sengupta and N. Dupuis, *Effective action and collective modes in quasi-one-dimensional spin-density-wave systems*, **Phys. Rev. B** **61**, 13493 (2000).
5. K. Sengupta and Victor. M. Yakovenko, *Hopf invariant for long-wavelength skyrmions in quantum Hall systems for integer and fractional fillings*, **Phys. Rev. B** **62**, 4586 (2000).
6. K. Sengupta, H.-J. Kwon, and V. M. Yakovenko, *Edge electron states for quasi-one-dimensional organic conductors in the magnetic-field-induced spin-density-wave phases*, **Phys. Rev. Lett.** **86**, 1094 (2001).
7. K. Sengupta, I. Zutic, H. -J. Kwon, V. M. Yakovenko, and S. Das Sarma, *Mid-gap states and pairing symmetry of quasi-one-dimensional organic superconductors*, **Phys. Rev. B** **63**, 144531 (2001).
8. K. Sengupta and N. Dupuis, *Spin-density-wave instabilities in the organic conductor  $(TMTSF)_2ClO_4$ : Role of anion ordering*, **Phys. Rev. B** **65**, 035108 (2002).
9. K. Sengupta, H.-J. Kwon, and V. M. Yakovenko, *Edge states and determination of pairing symmetry in superconducting  $Sr_2RuO_4$* , **Phys. Rev. B** **65**, 104504 (2002).
10. Subir Sachdev, K. Sengupta, and S. M. Girvin, *Mott insulators in strong electric fields*, **Phys. Rev. B** **66**, 075128 (2002).
11. Hyok-Jon Kwon, Victor M. Yakovenko, and K. Sengupta, *How to detect edge electron states in  $(TMTSF)_2X$  and  $Sr_2RuO_4$  experimentally*, **Synthetic Metals** **27**, 133 (2003).

12. H.-J. Kwon, K. Sengupta, and V. M. Yakovenko, *Theoretical prediction of the fractional ac Josephson effect in p- and d-wave superconductors*", **Brazilian Journal of Physics** **33**, 653-658 (2003)
13. K. Sengupta and N. Dupuis, *Field-induced spin-density-wave phases in TMTSF organic conductors: quantization versus non-quantization*, **Phys. Rev. B** **68**, 094431 (2003).
14. Hyok-Jon Kwon, K.Sengupta, and Victor M. Yakovenko, *Fractional ac Josephson effect in unconventional superconductors*, **Low Temperature Physics** **30**, 613-619 (2004).
15. H.-J. Kwon, K. Sengupta, and V. M. Yakovenko, *Fractional ac Josephson effect in p- and d-wave superconductors*, **Eur. Phys. J. B** **37**, 349-361 (2004).
16. P. Fendley, K. Sengupta, and S. Sachdev, *Competing density-wave orders in a one-dimensional hard-boson model*, **Phys. Rev. B** **69**, 075106 (2004).
17. K. Sengupta, S. Powell, and S. Sachdev, *Quench dynamics across quantum critical points*, **Phys. Rev. A** **69**, 053616 (2004).
18. K. Sengupta and N. Dupuis, *Mott insulator to superfluid transition of ultracold bosons in an optical lattice near a Feshbach resonance*, **Europhys. Lett.** **70**, 586 (2005).
19. L. Balents, L. Bartosch, A. Burkov, S. Sachdev, and K. Sengupta, *Putting competing orders in their place near a Mott transition*, **Phys. Rev. B** **71**, 144509 (2005).
20. L. Balents, L. Bartosch, A. Burkov, S. Sachdev, and K. Sengupta, *Competing orders II: A spin on the dimmer model*, **Phys. Rev. B** **71**, 144508 (2005).
21. K. Sengupta and N. Dupuis, *Mott insulator to superfluid transition in the Bose-Hubbard model: a strong-coupling approach*, **Phys. Rev. A** **71**, 033629 (2005).
22. K. Sengupta and Yong Baek Kim, *One dimensional itinerant ferromagnets with Heisenberg symmetry and the ferromagnetic quantum critical point*, **Phys. Rev. B** **71**, 174427 (2005).
23. L. Balents, L. Bartosch, A. Burkov, S. Sachdev and K. Sengupta, *Competing order and non-Landau-Ginzburg-Wilson criticality in (Bose) Mott insulators*, **cond-mat/0504692**, to appear in proceedings of "Physics of Strongly Correlated Electron Systems" YKIS2004 workshop, held at Yukawa Institute, Kyoto, Japan, November 2004.

24. A. Issacson, M-C Cha, K. Sengupta and S. M. Girvin, *Superfluid-Insulator transitions of two-species bosons in an optical lattice*, **Phys. Rev. B** **72**, **184507** (2005).
25. Jean-Sebastien Bernier, K. Sengupta and Yong Baek Kim, *Biaxial nematic phase of two dimensional disordered rotor models*, **cond-mat/0510290** (Accepted for publication in **Phys. Rev. B**).
26. K. Sengupta, S. Isakov, and Yong Baek Kim, *Superfluid-Insulator transitions of bosons on Kagome lattice at non-integer fillings*, **Phys. Rev. B** **73**, **245103** (2006).
27. S. Isakov, S. Wessel, R. Melko, K. Sengupta and Yong Baek Kim, *Valence Bond solids and unconventional quantum criticality in hard-core Bosons on the Kagome lattice*, **cond-mat/0602430** (submitted to **Phys. Rev. Lett.**)
28. K. Sengupta, N. Dupuis and P. Majumdar, *Bose-Fermi mixture in an optical lattice*, **cond-mat/0603162** (submitted to **Phys. Rev. A**).
29. K. Sengupta, R. Roy, and M. Maiti, *Spin-Hall effect in triplet chiral superconductors and graphene*, **cond-mat/0604217** (Accepted for publication in **Phys. Rev. B**).
30. A. Das, K. Sengupta, D. Sen and B.K. Chakrabarti, *Infinite-range Ising ferromagnet in time-dependent transverse field: dynamics near quantum critical point*, **cond-mat/0606137** (submitted to **Phys. Rev. B**).
31. S. Bhattacharjee and K. Sengupta, *Tunneling Conductance of graphene NIS junctions*, **cond-mat/0607489** (submitted to **Phys. Rev. Lett.**).