

# José María Román

## Publications

1. **A. LeClair, J. M. Román and G. Sierra,**  
*Log-periodic Behavior of Finite-size Effects in Field Theories with RG Limit Cycles.*  
[\*Nucl. Phys.\* \*\*B700\*\* \(2004\) 407-435. \(hep-th/0312141\).](#)
2. **G. Sierra, J. M. Román and J. Dukelsky,**  
*The Elementary Excitations of the BCS Model in the Canonical Ensemble,*  
[\*Int. J. Mod. Phys.\* \*\*A19S2\*\* \(2004\) 381-395. \(cond-mat/0301417\).](#)
3. **J. M. P. Carmelo, J. M. Román and K. Penc,**  
*Charge and Spin Quantum Fluids Generated by Many-Electron Interactions,*  
[\*Nucl. Phys.\* \*\*B683\*\* \(2004\) 387-422. \(cond-mat/0302044\).](#)
4. **A. LeClair, J. M. Román and G. Sierra,**  
*Russian Doll Renormalization Group and Superconductivity,*  
[\*Phys. Rev.\* \*\*B69\*\* \(2004\) 020505 \(4 pages\). \(cond-mat/0211338\).](#)
5. **A. LeClair, J. M. Román and G. Sierra,**  
*Russian Doll Renormalization Group, Kosterlitz-Thouless Flows, and the Cyclic sine-Gordon Model,*  
[\*Nucl. Phys.\* \*\*B675\*\* \(2003\) 584-606. \(hep-th/0301042\).](#)
6. **J. Dukelsky, J. M. Román and G. Sierra,**  
*Comment on Polynomial-time Simulation of Pairing Models on a Quantum Computer,*  
[\*Phys. Rev. Lett.\* \*\*90\*\* \(2003\) 249803. \(quant-ph/0305139\).](#)
7. **J. M. Román, G. Sierra and J. Dukelsky,**  
*Elementary Excitations of the BCS Model in the Canonical Ensemble,*  
[\*Phys. Rev.\* \*\*B67\*\* \(2003\) 064510 \(6 pages\). \(cond-mat/0207640\).](#)
8. **J. M. Román, G. Sierra and J. Dukelsky,**  
*Large N Limit of the Exactly Solvable BCS Model: Analytics versus Numerics,*  
[\*Nucl. Phys.\* \*\*B634\*\* \(2002\) 483-510. \(cond-mat/0202070\).](#)
9. **J. M. Román and J. Soto,**  
*Spin Waves in Canted Phases: An Application to Doped Manganites,*  
[\*Phys. Rev.\* \*\*B62\*\* \(2000\) 3300-3315. \(cond-mat/9911471\).](#)
10. **J. M. Román and J. Soto,**  
*Continuum Double Exchange Model,*  
[\*Phys. Rev.\* \*\*B59\*\* \(1999\) 11418-11423. \(cond-mat/9810389\).](#)
11. **J. M. Román and J. Soto,**  
*Spin Wave Mediated Non-Reciprocal Effects in Antiferromagnets,*  
[\*Ann. Phys.\* \*\*273\*\* \(1999\) 37-57. \(cond-mat/9709299\).](#)
12. **J. M. Román and J. Soto,**  
*Effective Field Theory Approach to Ferromagnets and Antiferromagnets in Crystalline Solids,*  
[\*Int. J. Mod. Phys.\* \*\*B13\*\* \(1999\) 755-789. \(cond-mat/9709298\).](#)
13. **J. M. Román, G. Sierra, J. Dukelsky and M. A. Martín-Delgado,**  
*The Matrix Product Approach to Quantum Spin Ladders,*  
[\*J. Phys.\* \*\*A31\*\* \(1998\) 9729-9759. \(cond-mat/9802150\).](#)
14. **J. M. Román and R. Tarrach,**  
*The Regulated Four-Parameter One-Dimensional Point Interaction,*  
[\*J. Phys.\* \*\*A29\*\* \(1996\) 6073-6085. \(hep-th/9511010\).](#)