

## SPIN-relevant publication.

In the following the 20 relevant publications of SPIN among the 904 (journal articles) of the period, selected from the list of Highlights 2011-2014. The International Advisory Board, in selecting the highlights, has always favored the activities more focused on the mission of the Institute rather than bibliometric indicators.

- 1. Electric Control of Magnetization and Interplay between Orbital Ordering and Ferroelectricity in a Multiferroic Metal–Organic Framework**  
*A. Stroppa, P. Jain, P. Barone, M. Marsman, J.M PerezMato, A. K. Cheetham, H. W. Kroto, and S. Picozzi*  
*Angewandte Chemie International Edition* **50**, 5847 (2011)
- 2. Microfluidics analysis of red blood cell membrane viscoelasticity**  
*G. Tomaiuolo, M. Barra, V. Preziosi, A. Cassinese, B. Rotoli, and S. Guido*  
*Lab on a Chip*, **11**, 449 (2011)
- 3. Intense paramagnon excitations in a large family of high-temperature superconductors**  
*M. Le Tacon, G. Ghiringhelli, J. Chaloupka, M. Moretti Sala, V. Hinkov, M. W. Haverkort, M. Minola, M. Bakr, K. J. Zhou, S. Blanco-Canosa, C. Monney, Y. T. Song, G. L. Sun, C. T. Lin, G. M. De Luca, M. Salluzzo, G. Khaliullin, T. Schmitt, L. Braicovich, and B. Keimer*  
*Nature Physics* **7**, 725 (2011)
- 4. High-Tc Ferroelectricity Emerging from Magnetic Degeneracy in Cupric Oxide**  
*G. Giovannetti, S. Kumar, A. Stroppa, J. van den Brink, S. Picozzi, and J. Lorenzana*  
*Phys. Rev. Lett.* **106**, 026401 (2011)
- 5. Retention of the Tetragonal to Orthorhombic Structural Transition in F-Substituted SmFeAsO: A New Phase Diagram for SmFeAs(O<sub>1-x</sub>F<sub>x</sub>)**  
*A. Martinelli, A. Palenzona, M. Tropeano, M. Putti, C. Ferdeghini, G. Profeta, and E. Emerich*  
*Phys. Rev. Lett.* **106**, 227001 (2011)
- 6. Anomalous Charge Tunneling in Fractional Quantum Hall Edge States at a Filling Factor  $\nu=5/2$**   
*M. Carrega, D. Ferraro, A. Braggio, N. Magnoli, and M. Sassetti*  
*Phys. Rev. Lett.* **107**, 146404 (2011)
- 7. Correlated Trends of Coexisting Magnetism and Superconductivity in Optimally Electron-Doped Oxypnictides**  
*S. Sanna, P. Carretta, P. Bonfà, G. Prando, G. Allodi, R. De Renzi, T. Shiroka, G. Lamura, A. Martinelli, and M. Putti*  
*Phys. Rev. Lett.* **107**, 227003 (2011)
- 8. One dimensional bosons: From condensed matter systems to ultracold gases**  
*M. A. Cazalilla, R. Citro, T. Giamarchi, E. Orignac, and M. Rigol*  
*Rev. Mod. Phys.* **83**, 1405 (2011)
- 9. Electron Transfer and Ionic Displacements as the Origin of the 2D Electron Gas at the LAO/STO Interface: Direct Measurements with Atomic-Column Spatial Resolution**  
*C. Cantoni, J. Gazquez, F. M. Granozio, M. P. Oxley, M. Varela, A. R. Lupini, S. J. Pennycook, C. Aruta, U. Scotti di Uccio, P. Perna, and D. Maccariello*  
*Adv. Mat.* **24**, 3952 (2012)

- 10. Multistate Memory Devices Based on Free-standing VO<sub>2</sub>/TiO<sub>2</sub> Microstructures Driven by Joule Self-Heating**  
*L. Pellegrino, N. Manca, T. Kanki, H. Tanaka, M. Biasotti, E. Bellingeri, A. S. Siri, and D. Marré*  
Adv. Mater. **24**, 2929 (2012)
- 11. Light-induced spiral mass transport in azo-polymer films under vortex-beam illumination**  
*A. Ambrosio, L. Marrucci, F. Borbone, A. Roviello, and P. Maddalena*  
Nature Comm. **3**, 989 (2012)
- 12. Phonon-mediated superconductivity in graphene by lithium deposition**  
*G. Profeta, M. Calandra, and F. Mauri*  
Nature Physics **8**, 131 (2012)
- 13. Spectral noise for edge states at the filling factor  $\nu = 5/2$**   
*M. Carrega, D. Ferraro, A. Braggio, N. Magnoli, and M. Sasseti*  
New J. Phys. **14**, 023017 (2012)
- 14. Direct Transition from Quantum Escape to a Phase Diffusion Regime in YBaCuO Biepitaxial Josephson Junctions**  
*L. Longobardi, D. Massarotti, D. Stornaiuolo, L. Galletti, G. Rotoli, F. Lombardi, and F. Tafuri*  
Phys. Rev. Lett. **109**, 050601 (2012)
- 15. Long-Range Incommensurate Charge Fluctuations in (Y,Nd)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>6+x</sub>**  
*G. Ghiringhelli, M. Le Tacon, M. Minola, S. Blanco-Canosa, C. Mazzoli, N. B. Brookes, G. M. De Luca, A. Frano, D. G. Hawthorn, F. He, T. Loew, M. Moretti Sala, D. C. Peets, M. Salluzzo, E. Schierle, R. Sutarto, G. A. Sawatzky, E. Weschke, B. Keimer, and L. Braicovich*  
Science **337**, 821 (2012)
- 16. Deep Ultraviolet Plasmon Resonance in Aluminum Nanoparticle Arrays**  
*R. Moroni and F. Bisio*  
ACS Nano **7**, 5834 (2013)
- 17. Observation of Dirac plasmons in a topological insulator**  
*P. Di Pietro, M. Ortolani, O. Limaj, A. Di Gaspare, V. Gilberti, F. Giorgianni, M. Brahlek, N. Bansal, N. Koirala, S. Oh, P. Calvani, and S. Lupi*  
Nature Nanotech. **8**, 556 (2013)
- 18. Electric Control of the Giant Rashba effect in bulk GeTe**  
*D. Di Sante, P. Barone, and S. Picozzi*  
Adv. Mat. **25**, 509 (2013)
- 19. Molecular Model for Light-Driven Spiral Mass Transport in Azopolymer Films**  
*A. Ambrosio, P. Maddalena, and L. Marrucci*  
Phys. Rev. Lett. **110**, 146102 (2013)
- 20. Origin of Interface Magnetism in BiMnO<sub>3</sub>/SrTiO<sub>3</sub> and LaAlO<sub>3</sub>/SrTiO<sub>3</sub> Heterostructure**  
*M. Salluzzo, S. Gariglio, D. Stornaiuolo, V. Sessi, S. Rusponi, C. Piamonteze, G. M. De Luca, M. Minola, D. Marré, A. Gadaleta, H. Brune, F. Nolting, N. B. Brookes, and G. Ghiringhelli*  
Phys. Rev. Lett. **111**, 087204 (2013)