Scientific Publications

1. Subhrangsu Sarkar*; Roxana Capu*; Yurii G Pashkevich; Jonas Knobel; Marli R Cantarino; Abhishek Nag; Kurt Kummer; Davide Betto; Roberto Sant; Christopher W Nicholson, Jarji Khmaladze, Ke-Jin Zhou, Nicholas Brookes, Claude Monney, Christian Bernhard*, "Composite antiferromagnetic and orbital order with altermagnetic properties at a cuprate/manganite interface", PNAS Nexus, pgae100 (2024)
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2. Andriesei, D. Plesca, Roxana Capu, R.M. Stan, R. Tanasa, C. Enachescu "Disentangling between static and kinetic effects in the hysteresis of spin crossover molecular magnets", Romanian Reports in Physics **75**, 502 (2023)
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3. Roxana Gaina, S. Sarkar, M. Soulier, J. Khmaladze, E. Perret, A. Tcakae, V. Hinkov, M. Bonura, E. Weschke, and C. Bernhard, "Magnetic-field dependence of the copper charge density wave order in a $YBa_2Cu_3O_7/Nd_{0.65}(Ca_{0.7}Sr_{0.3})_{0.35}MnO_3$ superlattice", Physical Review B **104**, 174513 (2021)
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4. Roxana Gaina, C.W. Nicholson, M. Rumo, S. Sarkar, J. Khmaladze, E. Paris, Y. Tseng, W. Zhang, T.C. Asmara, D. McNally, C. Piamonteze, E. Weschke, T. Schmitt, C. Monney, C. Bernhard, "Long-ranged Cu-based order with dz2 orbital character at a $YBa_2Cu_3O_7$/ manganite interface", npj Quantum Materials **6**, 12 (2021).
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7. Roberto de Andrés Prada, Roxana Gaina, N Biškup, M Varela, J Stahn, Christian Bernhard, "Controlling the strength of ferromagnetic order in $YBa_2Cu_3O_7/La_{2/3}Ca_{1/3}MnO_3$ Multilayers", Physical Review B **100 (11)**, 115129 (2019).
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8. E. Perret, C. Monney, S. Johnston, J. Khmaladze, F. Lyzwa, Roxana Gaina, M. Dantz, J. Pelliciari, C. Piamonteze, B.P.P. Mallett, M. Minola, B. Keimer, T. Schmitt & C. Bernhard

"Coupled Cu and Mn charge and orbital orders in $YBa_2Cu_3O_7$ /$Nd_{0.65}(Ca_{1-y}Sr_y)_{0.35}MnO_3$ multilayers"- Communications Physics **45**, 1 (2018)
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9. Roxana Gaina, Cristian Enachescu, "Nucleation in spin transition molecular magnets: a parallel between Ising-like and Mechanoelastic Models", Proceedings of the Romanian Academy, Series A, **18**, 3, pp.215-222 (2017)
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10. R.M. Stan, Roxana Gaina, T. Radu, C. Enăchescu, A. Stancu, R. Bronisz- "Kinetic effects on double hysteresis in spin crossover molecular magnets analyzed with FORC diagram technique " – J.APPL PHYS. **117**, 17B323 (2015)
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Phd Thesis entitled: "Resonant X-ray diffraction/absorption and polarized neutron reflectivity studies of electronic and magnetic interface and proximity effects $YBa_2Cu_3O_7$/manganite multilayers" – Thesis supervisors: Prof. Dr. Christian Bernhard – The University of Fribourg, Switzerland and Prof. Dr. Christof Niedermayer, Paul Scherrer Institute, Switzerland.