

CURRICULUM VITÆ (resumido)

Datos Personales

GRIGERA, Santiago Andres

Fecha de nacimiento: 1972
Estado Civil: Casado

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Dirección postal: Instituto de Física de Líquidos y Sistemas Biológicos
Calle 59 Nro 789
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Cargos actuales

- Investigador Independiente, CONICET, Argentina.
- Vice-Director, Instituto de Física de Líquidos y Sistemas Biológicos, La Plata, Argentina.
- Profesor Titular Ordinario, Universidad Nacional de La Plata, Argentina.
- Profesor Asociado (part-time), University of St Andrews, UK.

Cargos Pasados

- Septiembre 2002 – Octubre 2010 Royal Society Research Fellow, UK.
- Abril 2006 – Agosto 2009 Reader in Condensed Matter Physics, (Profesor Asociado) University of St. Andrews, UK.
- Abril 2004 – Abril 2006 Lecturer in Condensed Matter Physics, (Profesor Adjunto) University of St. Andrews, UK.
- Sept 2004 – Nov 2004 Visiting Scientist, International Innovation Center, Kyoto University, Kyoto, Japón.
- 2004 – 2006 Senior Member, Darwin College, Cambridge, UK.
- Abril 2001 – Sept 2009 Honorary Research Fellow, School of Physics and Astronomy, University of Birmingham, UK.
- Abril 2001 – Sept 2002 Leverhulme Research Fellow, School of Physics and Astronomy, University of St. Andrews, UK.
- Feb 2000 – Mar 2001 Leverhulme Research Fellow, School of Physics and Astronomy, University of Birmingham, UK.
- Mayo 1999 – Feb 2000. Postdoctoral Research Associate. Instituto de Física de Líquidos y Sistemas Biológicos, La Plata, Argentina.

Educación

- Doctor en Física, Instituto Balseiro, S. C. de Bariloche, Argentina. Julio 1999.
Tesis: “Transiciones de fase en la red de vórtices de los superconductores de alta temperatura”
- Licenciado en Física, Universidad Nacional de La Plata, Argentina. Octubre 1994.
Tesis de Licenciatura: “Difusión y desorción de superficies escalonadas: un estudio Monte Carlo”

Premios

- Premio Houssay, Ministerio de Ciencia, Tecnología e innovación productiva, Argentina, 2012.
- 2012 EPS Condensed Matter Division Europhysics Prize, European Physical Society, 2012. Recipients: Steven Bramwell, Claudio Castelnovo, Santiago Grigera, Roderich Moessner, Shivaji Sondhi and Alan Tennant.
- “Premio a la labor científica y tecnológica” Universidad Nacional de La Plata, Argentina, 2011.
- “Premio M. J. Altolaguirre en Física” Academia Nacional de Ciencias Exactas, Físicas y Naturales, Argentina, 2010.
- Award for contributions to the study of magnetism, Universidad Nacional de La Plata, Argentina, 2010.
- “Springer Theses award” was given to A. Rost thesis. This consists in publication in print and ebook in Springer’s Theses series, and a monetary award.
- Scientific breakthroughs of the year 2009: D.J.P. Morris *et al* (see publication list) was chosen among the ten scientific breakthroughs of 2009 by the journal *Science* (American Association for the Advancement of Science).
- Daiwa – Adrian Prize 2004. The Daiwa Anglo-Japanese Foundation. Prize for the collaboration between St. Andrews, Cambridge and Kyoto Universities. Recipients: A. Mackenzie, S. A. Grigera, R. Borzi, S. Julian, C. Bergemann, Y. Maeno, R. Perry, K. Ishida, N. Kikugawa, S. Ikeda, S. Nakatsuji, F. Nakamura.
- Mención honoraria, Premio Giambiaggi, Asociación Física Argentina (AFA), Octubre 2000.
- “Joven Notable”. Fundación Bolsa de Comercio de Buenos Aires, Argentina, April 1993.

Becas

- “Becas para estudiantes Universitarios destacados 1994”, Fundación Antorchas, Argentina, Mayo 1994 – Marzo 1995.
- Beca de Iniciación, Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina, Abril 1995 a Marzo 1997.
- Beca de Perfeccionamiento, Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina, Abril 1997 a March 1999.
- Beca de la Sociedad Italiana de Física, “Models and phenomenology for conventional and high temperature superconductivity”, International School of Physics “Enrico Fermi” Varenna, Italia. 24 de Junio al 4 de Julio de 1997.
- Beca Postdoctoral, Fundación Antorchas, Argentina, Mayo 1999 – Feb 2000.

Charlas invitadas en Congresos Internacionales

1. “Twin Boundaries and the Bose-glass”, International Workshop on Vortex Physics in High-Temperature Superconductors, Stanford University, Stanford, California, USA, June 20 – 25, 1999.

2. “Twin Boundaries and the Bose-glass Phase”, M2S-HTSC-VII Information, 6th International Conference on Materials and Mechanisms of Superconductivity and High-Temperature Superconductors, Houston, Texas, USA, February 20 – 25, 2000.
3. “A metamagnetic quantum critical endpoint in the bilayer ruthenate $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Physical phenomena at high magnetic fields IV, National High Magnetic Field Laboratory, Santa Fe, New Mexico, USA, October 19 – 25, 2001.
4. “Metamagnetism and quantum criticality in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, APCTP-ICTP Joint Conference on Condensed-Matter Physics, APCTP, Pohang University of Science and Technology, Korea, September 25 – 28, 2002.
5. “The phase diagram of $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, NEDO (New Energy and Industrial Technology Development Organization) Meeting, Key West, 18 March 10 – 13, 2003.
6. “Quantum criticality near a magnetic QCP”, Quantum Criticality ICAM (Institute for Complex Adaptive Matter) Workshop, Columbia University, USA, 20 – 23 March 2003.
7. “Angular dependence of the magnetic susceptibility in the itinerant metamagnet $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” Condensed Matter and Materials Physics Conference, Institute of Physics, Queen’s University Belfast, United Kingdom, April 6 – 9, 2003.
8. “Quantum criticality and metamagnetism in the Ruthenate $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” Pushing Physics at Low Temperatures, To celebrate F. de la Cruz scientific trajectory, Instituto Balseiro and Centro Atomico Bariloche, Argentina, September 25 – 26, 2003.
9. Fifth International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials, Chungking, China, June 11-16, 2004. (declined)
10. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, 20th General Conference of the Condensed Matter Division of the European Physical Society, Prague, Czech Republic, July 19–23, 2004.
11. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, 2004 St. Andrews Summer Workshop on Correlated Electron Physics and Complexity, St. Andrews, UK, August 9 – 13, 2004.
12. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Spin-Triplet Superconductivity and Ruthenate Physics (STSR2004), Kyoto, Japan, October 15 – 28, 2004. (cancelled due to illness).
13. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Theoretical and Experimental Magnetism Meeting, The Cosener’s House, Abingdon, Oxfordshire, UK, August 2 – 3, 2005.
14. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Intermetallics, Superconductors and Quantum Fluids at Low Temperatures, Stará Lesná, Slovak Republic, October 17 – 30, 2005.
15. “Quantum criticality and phase formation in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, 2006 Gordon Research Conference on Correlated Electron Systems, Mt. Holyoke College, South Hadley, Massachusetts, USA. June 18–23, 2006.
16. “Anisotropic resistive phase associated with metamagnetic quantum criticality in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” Phase Separation in Electronic Systems 2006, Hagios Pelagios, Crete. October 29 - November 4, 2006.
17. “Formation of a nematic fluid at high fields in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Annual General Meeting of the Low Temperature Group - Quantum Condensed Matter Theme, Institute of Physics, London, UK. 26 June 2007.
18. “Criticalidad Cuántica y el desarrollo de nuevos métodos para tratar la complejidad”, S. Plenary Talk, Annual General Meeting, Asociación Física Argentina, Salta, Argentina, 22-28 September 2007.
19. “Quantum criticality and metamagnetism in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, Condensed Matter and Materials Conference, Institute of Physics, Royal Holloway, Egham, UK, 27-29 March, 2008.
20. “Quantum criticality and nematic phase in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, 2008 General Workshop of the COST P16 - ECOM Action “New materials, new techniques and new ideas in Strongly Correlated Electron Systems”, Santander, Spain, July 16-19, 2008.

21. “Quantum criticality and quantum nematic phase in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, 25th International Conference on Low Temperature Physics (LT25), Amsterdam, Holland, 6 - 13 August 2008.
22. “Quantum criticality and nematic phase in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ”, XXI Congress and General Assembly of the International Union of Crystallography, Osaka, Japan, 23-31 August 2008.
23. “Non-equilibrium effects and intermediate phase in the spin-ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ ”, Topics In the Frustration of Pyrochlore Magnets ESF-HFM Workshop Cosenors House, Abingdon, UK, 16-18 September 2009
24. “Monopoles and Dirac Strings in Spin-Ice Pyrochlores” Symposium, The Scottish Doctoral Training Centre for Condensed matter, St Andrews, UK, 27-29 November 2009.
25. “Frustration and fractionalisation in spin-ice” UK/Japan Meeting, Bristol, UK 21-23 Feb 2010
26. “Dirac Strings and monopoles in DyTi_2O_7 ” Invited talk at the 2010 March meeting, Portland, Oregon, USA, 15-19 March 2010.
27. “Entropy surface in the neighbourhood of a quantum critical point in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” NG-SCES, Lanzarote, Spain, June 22-26 2010.
28. “Magnetism, frustration and excitations in spin ice” Giambiagi Winter School, Buenos Aires, 19-23 July 2010.
29. “Recent developments in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” ICMR Kick off Conference on Pressure Effects on Materials, International Center for Material Research, University of California Santa Barbara, Santa Barbara, USA, 23-27 August 2010.
30. “Non-equilibrium phenomena in spin-ice” Advanced Working Group on Monopoles in Spin Ice, Royal Holloway, University of London, UK, 15-16 October 2010.
31. “Recent advances in $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” Physical Phenomena at High Magnetic Fields, Tallahassee, Florida, US, 4-8 Dec. 2010.
32. “Unconventional magnetisation processes and thermal runaway in spin-ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ ”, At the Frontiers of Condensed Matter, Buenos Aires, Argentina, December 6-10, 2010.
33. “Recent developments in electronic nematics: the case of $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” HK 2010 - Humboldt Kolleg International Conference on Physics: Argentina-Alemania: un siglo de cooperacin cientfica en Fsica. La Plata, March 27-31, 2011.
34. “Unconventional Magnetization Processes and Thermal Runaway in Spin-Ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ ” Novel Phenomena in Frustrated Systems, Center for Nonlinear Studies at Los Alamos National Laboratory. Santa Fe, New Mexico, USA, 23-27 May, 2011.
35. “Unconventional Magnetization Processes and Thermal Runaway in Spin-Ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ ” SCES 2011 (Strongly correlated electron systems), Cambridge, UK, 29 Aug - 3 Sept, 2011.
36. “Unconventional Magnetization Processes and Thermal Runaway in Spin-Ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ ” International Conference on Recent Progress in Many-Body Theories - RPMBT16, Bariloche, Argentina, Nov. 28 to Dec. 2 2011.
37. “Out of equilibrium processes and monopole conserved phases in spin-ice” Physics in The City, London, Jun 22 to Jun 28 2012.
38. “Quantum criticality and phase formation: the case of $\text{Sr}_3\text{Ru}_2\text{O}_7$ ” Quantum Condensed Matter - VI meeting, Oak Ridge National Laboratory, USA, Sept. 2012.
39. “Charge ordering in a pure spin model: spin-ice” X-LAW3M, Buenos Aires, Argentina, April 8-12 2013.
40. “Non-equilibrium effects in spin-ice” Kick-off meeting of the Helmholtz Virtual Institute: New states of matter and their excitations” Berlin, April 22-24 2013.
41. “Defects and excitations in spin-ice” Novel Directions in Frustrated and Critical Magnetism, Nordita, Stockholm, Sweden, 14 July 2014 to 08 August 2014.

Publicaciones en revistas internacionales con referato

1. *Transiciones Termodinámicas y Correlación de Fase en Superconductores de Alta Temperatura.*
F. de la Cruz, E. F. Righi, S. A. Grigera, G. Nieva,
Matéria, **1** 2 (1996).
2. *Enhancement of c-axis vortex correlation by twin boundaries and columnar defects in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$.*
E. F. Righi, S. A. Grigera, D. Lopez, G. Nieva, F. de la Cruz, L. Civale, G. Pasquini, P. Levy,
Phys. Rev. B, **55**, 5663 (1997).
3. *Random Surface deposition of diffusing dimers in two dimensions.*
S. A. Grigera, T. S. Grigera, J. R. Grigera,
Phys. Lett. A, **226**, 124 (1997).
4. *Finite vortex correlation in the c direction in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ above the first order melting transition.*
E. F. Righi, S. A. Grigera, G. Nieva, D. Lopez, F. de la Cruz,
Phys. Rev. B, **55**, 14156 (1997).
5. *Angular restrictions on the glass transition and on the c-axis correlated liquid phase in twinned $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$.*
E. Morr e, S. A. Grigera, E. Osquiguil, G. Nieva, F. de la Cruz,
Phys. Lett. A, **233**, 130 (1997).
6. *Pinned vortex liquid above the critical point of the first order melting transition: a consequence of point-like disorder.*
D. L pez, L. Krusin-Elbaum, H. Safar, E. Righi, F. de la Cruz, S. Grigera, C. Feild, G. Nieva, W. K. Kwok, L. Paulius, G. W. Crabtree,
Phys. Rev. Lett., **80**, 1070 (1998).
7. *Vortex phase coherence along the c axis in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$.*
Esteban F. Righi, Santiago A. Grigera, Gladys Nieva, Francisco de la Cruz,
Sup. Rev., **2**, 205 (1998).
8. *Nonlocal transport properties and size effects in heavily twinned $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ single crystals.*
S. A. Grigera, E. Morr e, E. Osquiguil, G. Nieva, F. de la Cruz,
Solid State Comm., **107**, 335 (1998).
9. *The Bose-glass phase in twinned $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$*
S. A. Grigera, E. Morr e, E. Osquiguil, C. Balseiro, G. Nieva, F. de la Cruz,
Phys. Rev. Lett., **81**, 2348 (1998).
10. *A two step liquid-solid vortex transition with the field along the ab-planes in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ crystals*
S. A. Grigera, E. Morr e, E. Osquiguil, G. Nieva, F. de la Cruz,
Phys. Rev. B, **59**, 11201 (1999).
11. *Concerning the microscopic linear response theory*
M. O. C ceres, S. A. Grigera,
Physica A, **291**, 317 (2001).
12. *Metamagnetism and critical fluctuations in high quality single crystals of the bilayer ruthenate $\text{Sr}_3\text{Ru}_2\text{O}_7$*
R. S. Perry, L. M. Galvin, S. A. Grigera, L. Capogna, A. J. Schofield, A. P. Mackenzie, S. Ikeda, S. Nakatsuji, Y. Maeno, M. Chiao, S. R. Julian, C. Pfleiderer,
Phys. Rev. Lett., **86**, 2661 (2001)
13. *Finite size effects in the Bose-glass transition*
S. A. Grigera,
Phys. Rev. B, **63**, 212509 (2001).
14. *Magnetic Field-Tuned Quantum Criticality in the Metallic Ruthenate $\text{Sr}_3\text{Ru}_2\text{O}_7$*
S.A. Grigera, R. S. Perry, A. J. Schofield, M. Chiao, S. R. Julian, G. G. Lonzarich, S. I. Ikeda, Y. Maeno, A. J. Millis, A. P. Mackenzie.
Science, **294**, 329 (2001).

15. *Sensitivity to disorder of the metallic state in ruthenates.*
L. Capogna, A. P. Mackenzie, R. S. Perry, S. A. Grigera, L. M. Galvin, P. Raychaudhuri, A. J. Schofield, C. S. Alexander, G. Cao, S. R. Julian, Y. Maeno.
Phys. Rev. Lett., **88**, 076602 (2002).
16. *Metamagnetic Quantum Criticality.*
A. J. Millis, A. J. Schofield, G. G. Lonzarich, S. A. Grigera,
Phys. Rev. Lett., **88**, 217204 (2002).
17. *Flux cutting in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ revisited*
S. A. Grigera, T. S. Grigera, E. F. Righi, G. Nieva, F. de la Cruz,
Physica C, **371/3**, 237 (2002).
18. *A metamagnetic quantum critical endpoint in $\text{Sr}_3\text{Ru}_2\text{O}_7$*
S. A. Grigera, A. P. Mackenzie, A. J. Schofield, S. R. Julian, G. G. Lonzarich.
Int. J. Mod Phys B, **16**, 3258 (2002).
19. *Angular dependence of the magnetic susceptibility in the itinerant metamagnet $\text{Sr}_3\text{Ru}_2\text{O}_7$*
S. A. Grigera, R. A. Borzi, S. R. Julian, R. S. Perry, Y. Maeno, A. P. Mackenzie,
Phys. Rev. B, **67**, 214427 (2003).
20. *Electronic properties of the layered perovskite ruthenates: correlated electron physics approaching the low-disorder limit.*
A.P. Mackenzie, S.A. Grigera ,
J. Low Temp. Phys., **135**, 39 (2004).
21. *Multiple first-order metamagnetic transitions and quantum oscillations in ultrapure $\text{Sr}_3\text{Ru}_2\text{O}_7$.*
R. S. Perry, K. Kitagawa, S. A. Grigera, R. A. Borzi, A. P. Mackenzie, K. Ishida, Y. Maeno
Phys. Rev. Lett., **92**, 166602 (2004).
22. *De Haas-van Alphen effect across the metamagnetic transition in $\text{Sr}_3\text{Ru}_2\text{O}_7$.*
R. A. Borzi, S. A. Grigera, R. S. Perry, N. Kikugawa, K. Kitagawa, Y. Maeno, A. P. Mackenzie.
Phys. Rev. Lett., **92**, 216403 (2004).
23. *Momentum-resolved tunneling between a Luttinger liquid and a two-dimensional electron gas*
S. A. Grigera, A. J. Schofield, S. Rabello, Qimiao Si,
Phys. Rev. B, **69**, 245109 (2004).
24. *Rigid-Band Shift of the Fermi Level in a Strongly Correlated Metal: Sr_2RuO_4*
N. Kikugawa, A.P. Mackenzie, C. Bergemann, R.A. Borzi, S.A. Grigera, Y. Maeno,
Phys. Rev. B, **70**, 060508(R) (2004).
25. *Disorder-sensitive phase formation linked to metamagnetic quantum criticality*
S.A. Grigera, P. Gegenwart, R.A. Borzi, F. Weickert, A.J. Schofield, R.S. Perry, T. Tayama, T. Sakakibara, Y. Maeno, A.G. Green, A.P. Mackenzie,
Science, **306**, 1154 (2004).
26. *Phase Bifurcation and Quantum Fluctuations in $\text{Sr}_3\text{Ru}_2\text{O}_7$*
A. G. Green, S. A. Grigera, R. A. Borzi, A. P. Mackenzie, R. S. Perry, B. D. Simons,
Phys. Rev. Lett., **95**, 086402 (2005).
27. *A quantum critical route to field-induced superconductivity*
A. P. Mackenzie, S. A. Grigera,
Science, **309**, 1330 (2005).
28. *Formation of a nematic fluid at high fields in $\text{Sr}_3\text{Ru}_2\text{O}_7$*
R.A. Borzi, S.A. Grigera, J. Farrell, R.S. Perry, S. Lister, S.L. Lee, D.A. Tennant, Y. Maeno, A.P. Mackenzie
Science, **315**, 214 (2007).
29. *Effect of electron doping the metamagnet $\text{Sr}_{3-y}\text{La}_y\text{Ru}_2\text{O}_7$*
J. Farrell, R. S. Perry, A. Rost, J. F. Mercure, N. Kikugawa, S. A. Grigera, A. P. Mackenzie.
Phys. Rev. B, **78**, 180409R (2008).

30. *Inhomogeneous magnetic phases: a Fulde-Ferrell-Larkin-Ovchinnikov-like phase in $Sr_3Ru_2O_7$*
A. Berridge, A. Green, S.A. Grigera, and B. Simons.
Phys. Rev. Lett., **102**, 136404 (2009).
31. *Microscopic theory of the nematic phase in $Sr_3Ru_2O_7$*
S. Raghu, A. Paramekanti, E.-A. Kim, R. A. Borzi, S. A. Grigera, A. P. Mackenzie, S. A. Kivelson.
Phys. Rev. B, **79**, 214402 (2009).
32. *Entropy in the nematic phase and in the quantum critical region of $Sr_3Ru_2O_7$*
A. Rost, J. F. Mercure, R. Perry, A. P. Mackenzie, S. A. Grigera.
Science, **325**, 1360 (2009).
33. *Dirac Strings and Magnetic Monopoles in the Spin Ice $Dy_2Ti_2O_7$*
D. J. P. Morris, D. A. Tennant, S. A. Grigera, B. Klemke, C. Castelnovo, R. Moessner, C. Czternasty, M. Meissner, K. C. Rule, J.-U. Hoffmann, K. Kiefer, S. Gerischer, D. Slobinsky, and R. S. Perry
Science, **326**, 411 (2009).
34. *Quasiparticle Interference and Real-space Imaging of States Implicated in the Electronic Nematicity of $Sr_3Ru_2O_7$*
Jinho Lee, M. Allan, A. Wang, J.E. Farrell, S.A. Grigera, F. Baumberger, J.C. Davis and A.P. Mackenzie
Nature Physics, **5**, 800 (2009).
35. *Quantum oscillations in the anomalous phase in $Sr_3Ru_2O_7$*
J.-F. Mercure, S. K. Goh, E. C. T. O'Farrell, R. S. Perry, M. L. Sutherland, A. Rost, S. A. Grigera, R. A. Borzi, P. Gegenwart, and A. P. Mackenzie.
Phys. Rev. Lett., **103**, 176401 (2009).
36. *Inhomogeneous magnetic phases: a LOFF-like phase in $Sr_3Ru_2O_7$*
A. Berridge, A. Green, S.A. Grigera and B. Simons.
Phys. Rev. B, **81**, 054429 (2010).
37. *Quantum oscillations near a quantum critical end point in $Sr_3Ru_2O_7$*
J.-F. Mercure, A. Rost, E. C. T. O'Farrell, S. K. Goh, R. S. Perry, M. L. Sutherland, S. A. Grigera, R. A. Borzi, P. Gegenwart, A.S. Gibbs, and A. P. Mackenzie
Phys. Rev. B, **81**, 235103 (2010).
38. *Power law specific heat divergence in $Sr_3Ru_2O_7$*
A. Rost, A.M. Berridge, R. Perry, J. F. Mercure, S. A. Grigera, A. P. Mackenzie.
Phys. Status Solidi B, **247**, 513 (2010).
39. *Unconventional magnetization processes and thermal runaway in spin-ice $Dy_2Ti_2O_7$*
D. Slobinsky, C. Castelnovo, R. A. Borzi, A. Gibbs, R. Moessner, A. P. Mackenzie, S. A. Grigera.
Phys. Rev. Lett. **105**, 267205 (2010).
40. *Quantum critical metamagnetism of $Sr_3Ru_2O_7$ under hydrostatic pressure*
W. Wu, A. McCollam, S. A. Grigera, R. S. Perry, A. P. Mackenzie, and S. R. Julian.
Phys. Rev. B, **83**, 045106 (2011). (editor's choice)
41. *Thermal Relaxation and Heat Transport in Spin Ice $Dy_2Ti_2O_7$*
B. Klemke, M. Meissner, P. Strehlow, K. Kiefer, S. A. Grigera, D. A. Tennant.
J. Low Temp Phys. **163**, 345-369 (2011).
42. *Thermodynamics of Phase Formation in the Quantum Critical Metal $Sr_3Ru_2O_7$*
A. W. Rost , S. A. Grigera , J. Bruin , R. S. Perry , D. Tian , S. Raghu , Steven Kivelson, Andrew Mackenzie.
PNAS (Procedures of the National Academy of Sciences), **108** 1654916553 (2011).
43. *Hall coefficient anomaly in the low temperature, high field phase of $Sr_3Ru_2O_7$*
R. A. Borzi, A. McCollam, J. A. N. Bruin, R. S. Perry, A. P. Mackenzie, S. A. Grigera.
Phys. Rev. B **84**, 205112 (2011).

44. *Quantum criticality and the formation of a putative electronic liquid crystal in $Sr_3Ru_2O_7$*
A.P. Mackenzie, J.A.N. Bruin, R.A. Borzi, A.W. Rost, S.A. Grigera.
Physica C **481**, 207 (2012).
45. *Fast sweep-rate plastic Faraday force magnetometer with simultaneous sample temperature measurement*
D. Slobinsky, R. A. Borzi, A. P. Mackenzie, S. A. Grigera.
Rev. Sci. Inst. **83**, 125104 (2012).
46. *High temperature onset of field-induced transitions in the spin-ice compound $Dy_2Ti_2O_7$* M. J. Matthews, C. Castelnovo, R. Moessner, S. A. Grigera, D. Prabhakaran, P. Schiffer *Phys. Rev. B*, **86**, 214419 (2012).
47. *Study of the electronic nematic phase of $Sr_3Ru_2O_7$ with precise control of the applied magnetic field vector*
J. A. N. Bruin, R. A. Borzi, S. A. Grigera, A. W. Rost, R. S. Perry, A. P. Mackenzie
Phys. Rev. B **87**, 161106(R) (2013).
48. *Charge Ordering in a Pure Spin Model: Dipolar Spin Ice* R. A. Borzi, D. Slobinsky, S. A. Grigera
Phys. Rev. Lett. **111**, 147204 (2013).
49. *Pressure study of nematicity and quantum criticality in $Sr_3Ru_2O_7$ for an in-plane field*
D. Sun, W. Wu, S. A. Grigera, R. S. Perry, A. P. Mackenzie, and S. R. Julian.
Phys. Rev. B **88**, 235129 (2013).

Conference Proceedings (in books)

- *A metamagnetic quantum critical endpoint in $Sr_3Ru_2O_7$*
S. A. Grigera, A. P. Mackenzie, A. J. Schofield, S.R. Julian, G. G. Lonzarich.
Proceedings of the IV conference on Physical Phenomena at High Magnetic Fields, (World Scientific, 2001).
- *Metamagnetic Quantum Criticality in $Sr_3Ru_2O_7$*
A. J. Schofield, A. J. Millis, S. A. Grigera, G. G. Lonzarich.
in “Ruthenate and Rutheno-Cuprate Materials: Unconventional Superconductivity, Magnetism and Quantum Phase Transitions” Eds: C. Noce, A. Vecchione, M. Cuoco, A. Romano, Springer Lecture Notes in Physics, **603**, 271 (2002).
- *Dynamical Susceptibility close to a critical point in $Sr_3Ru_2O_7$*
R. A. Borzi, S. A. Grigera, A. P. Mackenzie.
Proceedings of the 3rd Symposium on Slow Dynamics of Complex Systems, AIP Conference series 2003.

Invited publications

- *Metamagnetism and Quantum Criticality*
S. A. Grigera
IoP Magnetism Group Newsletter, Institute of Physics, UK. May 2004.

Otros

- Director de proyecto de investigación, Programa de Incentivos (UNLP).
- Editor in chief, Papers in Physics (www.papersinphysics.org).
- Referee of Scientific journals: Physical Review Letters, Physical Review B, Science, PNAS & others.
- Chair, Cryogenic Techniques and Applications, 27th International Conference on Low Temperature Physics, 2014.

- Member international advisory board: International Conference on Heavy Electrons and Novel Phases (ICHN2012), Korea.
- Member international advisory committee: International Conference on Neutron Scattering (ICNS 2013), Edinburgh, UK.
- Editor, X Latin American workshop on magnetism, magnetic materials and their applications.
- Referee: Fonds zur Förderung der wissenschaftlichen Forschung, Austria.
- Referee: Fondo nacional de Desarrollo Científico y Tecnológico, Chile.
- Jurado 2012, premio Giambiagi, Asociación Física Argentina.

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