

Curriculum Vitae (CV)

Name: **Rajib Sarkar**
Date of Birth : **October-1979**
Nationality : Indian
Children : One

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Technical University of Dresden
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Employments, education and visit:

- PhD, Physics, Jadavpur University, work done at Saha Institute of Nuclear Physics, India (Thesis submitted August, 2008, degree obtained July, 2009)
- Post MSc. in Physics, Saha Institute of Nuclear Physics, India September, 2003
- MSc. in Physics, Kalyani University, India August, 2002
- BSc. in Physics, Calcutta University, India July, 2000
- Higher Secondary School (12 th class), India July, 1997
- Secondary School (10 th class), India July, 1995

Employments:

- Scientist, Technical University of Dresden, Germany (May, 2014 onwards)
- Post doctoral fellow, Technical University of Dresden, Germany (May, 2012 - April, 2014)
- Post doctoral fellow, Max Planck Institute for Chemical Physics of Solids, Germany (July, 2009 - April, 2012)
- Visiting Scholar, Max Planck Institute for Chemical Physics of Solids, Germany (September, 2008 - June, 2009)

Visits:

- Two weeks visit, Institute for Nanosciences and Cryogenics, Grenoble Alpes, France (September, 2018)
- Six weeks visit, University of California, Davis, USA (August, 2017 - September, 2017)
- Two months visit, University of California, Davis, USA (August, 2016 - September, 2016)

- Three months visit, Max Planck Institute, Chemical Physics of Solids, Germany (March, 2008 - June, 2008)
- Frequent visit at large scale facility PSI, Swiss for muon experiments (two to three times in a year)

Language skill:

- English: Good
- German: Working knowledge
- Bengali: Native language
- Hindi: Fluent

Projects: Third party funding

- Deutsche Forschungsgemeinschaft-(**SA 2426/1-1**) Post doctoral fellowship (2012-2014). Total amount of **170,400 Euro**.
- Principal investigator in **DFG-GRK 1621 (01.10.2015-01.03.2020)** Itineranter Magnetismus und Supraleitung in intermetallischen Verbindungen
- Principal Investigator in Collaborative Research Center **SFB 1143** at the Technical University of Dresden (**01.01.2015-31.12.2018**). Main project: Correlated Magnetism: From Frustration To Topology, Sub-project: Competing orders and spin dynamics: Nuclear probes
- SFB 1143 Correlated Magnetism: From Frustration to Topology funded by the Deutsche Forschungsgemeinschaft for the period (**01.01.2019 - 31.12.2022**). Project C02 : Competing orders and spin dynamics: Nuclear probes.

Fellowship and awards:

- Max-Planck Fellowship - 2009
- Young Scientist Award 2006, MRSI Kolkata Chapter
- CSIR (NET) 2001

Professional services:

- Referee for Physical Review B, Physical Review Letters and New Journal of Physics

Scientific collaborators:

- Prof. Hans-Henning Klauss, Technical University of Dresden, Germany
- Dr. Hubertus Luetkens, Paul Scherrer Institute, Swiss
- Prof. Cornelius Krellner, Goethe Universität Frankfurt am Main, Germany
- Dr. Vadim Grinenko, Technical University of Dresden, Germany
- Prof. Nicholas Curro, University of California, Davis, USA

Teaching experience:

- Elective course: Summer semester, 2021 (Symmetry Breaking in condensed matter physics: An experimental approach)
- Elective course: Summer semester, 2019 (Application of Solid State Nuclear Magnetic Resonance (NMR) and Muon Spin Rotation/Relaxation on Strongly Correlated Electron Systems) 6 lectures (9 hours)
- Elective course: Winter semester, 2018 (Nuclear Magnetic Resonance and Muon spin rotation in solid state physics) 13 lectures (20 hours)
- Physikalisches Grundpraktikum III-Bachelor Physics (2nd semester-Summer term): 2018 (Electron Spin Resonance experiment- supervisor and initial setting up of this experiment)
- Physikalisches Grundpraktikum III-Bachelor Physics (2nd semester-Summer term): 2014, 2015, 2016 (Experiments Superconductivity I)
- Fortgeschrittenenpraktikum -Bachelor Physics (5th Semester-Winter term): 2014, 2015, 2016, 2017, 2018, 2019 (Nuclear Magnetic Resonance)
- Advanced NMR experiments for Masters students: 2014, 2015, 2016, 2017, 2018, 2019, 2020 (Nuclear Magnetic Resonance)

Mentors of PhD and master thesis

- PhD thesis: Tillmann Weinhold (started in 2020 continuing)
- PhD thesis: Shanu Dengre (started on 01.10.2015-mentored until 2018)
- PhD thesis: Sascha Albert Bräuninger (started on 01.06.2015-mentored until 2018)
- PhD thesis: Shreenanda Ghosh (started on 01.01.2016-mentored until 2017)
- PhD thesis: Felix Brückner (started on 01.06.2014 status unknown)
- Diploma master thesis: Felix Brückner (finished in 2014)
- PhD thesis: Marco Günther (Mentoring for the year 2013 and 2014)

Outreach:

1. **Abhibasi Pothik Baggani** (A popular book in Bengali Language)
2. Science and Arguments - (Biggan O Jukti) -YouTube

Scientific publications in referred journals

1. Magnetic anisotropy and spin dynamics in the kagome magnet $\text{Fe}_4\text{Si}_2\text{Sn}_7\text{O}_{16}$: NMR and magnetic susceptibility study on oriented powder
S. Dengre, **R. Sarkar**, L. Opherden, T. Herrmannsdrfer, M. Allison, T. Shnel, C. D. Ling, J. S. Gardner, and H.-H. Klauss
Phys. Rev. B **103**, 064425 (2021)
2. Destruction of long-range magnetic order in an external magnetic field and the associated spin dynamics in Cu_2GaBO_5 and Cu_2AlBO_5 ludwigites
A. A. Kulbakov, **R. Sarkar**, O. Janson, S. Dengre, T. Weinhold, E. M. Moshkina, P. Y. Portnichenko, H. Luetkens, F. Yokaichiya, A. S. Sukhanov, R. M. Eremina, Ph. Schlender, A. Schneidewind, H.-H. Klauss, and D. S. Inosov
Phys. Rev. B **103**, 024447 (2021)
3. Split superconducting and time-reversal symmetry-breaking transitions, and magnetic order in Sr_2RuO_4 under uniaxial stress
V. Grinenko, S. Ghosh, **R. Sarkar**, J.-C. Orain, A. Nikitin, M. Elender, D. Das, Z. Guguchia, F. Brckner, M. E. Barber, J. Park, N. Kikugawa, D. A. Sokolov, J. S. Bobowski, T. Miyoshi, Y. Maeno, A. P. Mackenzie, H. Luetkens, C. W. Hicks, H.-H. Klauss
Nature Physics (2021) [arXiv:2001.08152](https://arxiv.org/abs/2001.08152)
4. Spin Nematic Phase in Iron-Oxychalcogenide Mott Insulators
B. Freelon, **R. Sarkar**, S. Kamusella, F. Brckner, V. Grinenko, Swagata Acharya, Mukul Laad, Luis Craco, Zahra Yamani, Roxana Flacau, Ian Swainson, Yuhao Liu, Hangdong Wang, Jianhua Du, Minghu Fang, H.-H. Klauss
npj (Nature) Quantum Materials **6**, 4 (2021)
5. Long-range magnetic order in the $S=1/2$ triangular lattice antiferromagnet KCeS_2
G. Bastien, B. Rubrecht, E. Haeussler, P. Schlender, Z. Zangeneh, S. Avdoshenko, **R. Sarkar**, A. Alfonsov, S. Luther, Y. A. Onykiienko, H. C. Walker, H. Khne, V. Grinenko, Z. Guguchia, V. Kataev, H. -H. Klauss, L. Hozoi, J. van den Brink, D. S. Inosov, B. Bchner, A. U. B. Wolter, T. Doert
SciPost Phys. **9**, 041(2020)
6. Magnetic field tuning of low-energy spin dynamics in the single-atomic magnet $\text{Li}_2(\text{Li}_{1-x}\text{Fe}_x)\text{N}$
S. A. Bruninger, A. Jesche, S. Kamusella, F. Seewald, M. Fix, **R. Sarkar**, A. A. Zvyagin, and H.-H. Klauss
Phys. Rev. B **102**, 054426(2020)
7. Superconductivity with broken time reversal symmetry inside a superconducting s-wave state
V. Grinenko, **R. Sarkar**, K. Kihou, C. H. Lee, I. Morozov, S. Aswartham, B. Bchner, P. Chekhonin, W. Skrotzki, K. Nenkov, R. Hhne, K. Nielsch, D. V. Efremov, S. -L. Drechsler, V. L. Vadimov, M. A. Silaev, P. Volkov, I. Eremin, H. Luetkens, H. H. Klauss
Nature Physics **16**, 789794(2020)

8. Impact of disorder on dynamics and ordering in the honeycomb lattice iridate Na_2IrO_3
R. Sarkar, Z. Mei, A. Ruiz, G. Lopez, H.-H. Klauss, J. G. Analytis, I. Kimchi, N.J Curro
Physical Review B 101, 081101(R) (2020) (Rapid communication)
9. Quantum spin liquid ground state in the disorder free triangular lattice NaYbS_2
R. Sarkar, Ph. Schlender, V. Grinenko, E. Haeussler, Peter J. Baker, Th. Doert, and H.-H. Klauss
Physical Review B 100, 241116(R) (2019) (Rapid communication)
10. Magnetic interactions and spin dynamics in the bond-disordered pyrochlore fluoride $\text{NaCaCo}_2\text{F}_7$
J. Zeisner, S. A. Bruninger, L. Opherden, R. Sarkar, D. I. Gorbunov, J. W. Krizan, T. Herrmannsd rfer, R. J. Cava, J. Wosnitzer, B. Bchner, H.-H. Klauss, and V. Kataev
Physical Review B 99, 155104 (2019)
11. Dynamic magnetism in the disordered hexagonal double perovskite $\text{BaTi}_{1/2}\text{Mn}_{1/2}\text{O}_3$
M. R. Cantarino, R. P. Amaral, R. S. Freitas, J. C. R. Arajo, R. Lora-Serrano, H. Luetkens, C. Baines, S. Bruninger, V. Grinenko, R. Sarkar, H. H. Klauss, E. C. Andrade, and F. A. Garcia
Physical Review B 99, 054412(2019)
12. NaYbS_2 - a new planar spin-1/2 triangular-lattice magnet and putative spin liquid
M. Baenitz, Ph. Schlender, J. Sichelschmidt, Y. A. Onykienko, Z. Zangeneh, K. M. Ranjith, R. Sarkar, L. Hozoi, H. C. Walker, J. -C. Orain, H. Yasuoka, J. van den Brink, H. H. Klauss, D. S. Inosov, Th. Doert
Physical Review B 98, 220409(R)(2018) (Rapid communication)
13. Anomalous Hall effect in Weyl semimetal half-Heusler compounds RPtBi ($\text{R} = \text{Gd}$ and Nd)
Chandra Shekhar, Nitesh Kumar, V. Grinenko, Sanjay Singh, R. Sarkar, H. Luetkens, Shu-Chun Wu, Yang Zhang, Alexander C. Komarek, Erik Kampert, Yurii Skourski, Jochen Wosnitzer, Walter Schnelle, Alix McCollam, Uli Zeitler, Jrgen Kbler, Binghai Yan, H.-H. Klauss, S. S. P. Parkin, and C. Felser
Proceedings of the National Academy of Sciences 11, 9140(2018).
14. Analysis of the crystal electric field parameters of YbNi_4P_2
Zita Huesges, Kristin Kliemt, Cornelius Krellner, R. Sarkar, Hans-Henning Klauss, Christoph Geibel, Martin Rotter, Pavel Novak, J. Kunes, Oliver Stockert
New Journal of Physics 20, 073021(2018).
15. Magnetism and the phase diagram of MnSb_2O_6
C. Koo, J. Werner, M. Tzschoppe, M. Abdel-Hafiez, P. K. Biswas, R. Sarkar, H. -H. Klauss, G. V. Raganyan, E. A. Ovchencov, A. Yu. Nikulin, A. N. Vasiliev, E. A. Zvereva, and R. Klingeler
Physical Review B 97, 224416(2018).
16. Low temperature breakdown of antiferromagnetic quantum critical behavior in FeSe
V. Grinenko, R. Sarkar, P. Materne, P. Chekhonin, H. Luetkens, and H.-H. Klauss
Physical Review B 97, 201102(R) (2018) (Rapid communication).
17. Uniaxial strain control of spin-polarization in multicomponent nematic order of BaFe_2As_2
T. Kissikov, R. Sarkar, M. Lawson, B. T. Bush, E. I. Timmons, M. A. Tanatar, R.

- Prozorov, S. L. Bud'ko, P. C. Canfield, R. M. Fernandes, and N. J. Curro
Nature Communications **9**, 1058 (2018).
18. Local nematic susceptibility in stressed BaFe₂As₂ from NMR electric field gradient measurements
 T. Kissikov, **R. Sarkar**, M. Lawson, B. T. Bush, E. I. Timmons, M. A. Tanatar, R. Prozorov, S. L. Bud'ko, P. C. Canfield, R. M. Fernandes, W. F. Goh, W. E. Pickett, N. J. Curro
Physical Review B **96**, 241108(2017) (**Rapid communication**).
 19. Phase separated ferromagnetism and superconductivity in Sr_{0.5}Ce_{0.5}FBS_{2-x}Se_x
 A. M. Nikitin, V. Grinenko, **R. Sarkar**, J.-C. Orain, M. V. Salis, J. Henke, Y. K. Huang, H.-H. Klauss, A. Amato and A. de Visser
Scientific Reports **7**, 17370 (2017).
 20. Spin freezing in the disordered pyrochlore magnet NaCaCo₂F₇: NMR studies and Monte-Carlo simulations
R. Sarkar, J. W. Krizan, F. Brckner, E. C. Andrade, S. Rachel, M. Vojta, R. J. Cava, and H.-H. Klauss
Physical Review B **96**, 235117(2017).
 21. Diluted paramagnetic impurities in nonmagnetic Ba₂YIrO₆
 F. Hammerath, **R. Sarkar**, S. Kamusella, C. Baines, H.-H. Klauss, T. Dey, A. Maljuk, D. Efremov, A.U.B. Wolter, S. Wurmehl, J. van den Brink, and B. Buechner
Physical Review B **96**, 165108(2017).
 22. Nuclear Magnetic Resonance Probe Head Design for Precision Strain Control
 T. Kissikov, **R. Sarkar**, A. P. Dioguardi, B. T. Bush, and N. J. Curro
Review of Scientific Instruments **88**, 103902(2017)
 23. Superconductivity with broken time reversal symmetry in ion irradiated Ba_{0.27}K_{0.73}Fe₂As₂ single crystals
 V. Grinenko, P. Materne, **R. Sarkar**, S. Kamusella, H. Luetkens, K. Kihou, C.-H. Lee, S. Akhmadaliev, D. V. Efremov, S.-L. Drechsler, and H.-H. Klauss
Physical Review B **95**, 214511(2017).
 24. Magnetic order and spin dynamics across a ferromagnetic quantum critical point: μ SR investigations of YbNi₄(P_{1-x}As_x)₂
R. Sarkar, J. Spehling, P. Materne, H. Luetkens, C. Baines, M. Brando, C. Krellner, and H.-H. Klauss
Physical Review B **95**, 121111(2017) (**Rapid communication**).
 25. Non-collinear antiferromagnetism of coupled spins and pseudospins in the double perovskite La₂CuIrO₆
 K. Manna, **R. Sarkar**, S. Fuchs, Y. A. Onykieenko, A. K. Bera, G. A. Cansever, S. Kamusella, A. Maljuk, C.G.F. Blum, L.T. Corredor, A.U.B. Wolter, S.M. Yusuf, M. Frontzek, L. Keller, M. Iakovleva, E. Vavilova, H.-J. Grafe, V. Kataev, H.-H. Klauss, D.S. Inosov, S. Wurmehl, B. Büchner
Physical Review B **94**, 144437(2016).
 26. Microscopic coexistence of superconductivity and magnetism in Ca_{1-x}Na_xFe₂As₂
 P. Materne, S. Kamusela, **R. Sarkar**, T. Goltz, J. Spehling, H. Maeter, L. Harnagea,

- S. Wurmehl, B. Büchner, H. Luetkens, C. Timm, and H.-H. Klauss
Physical Review B **92**, 134511(2015).
27. ^{119}Sn -NMR investigations on superconducting $\text{Ca}_3\text{Ir}_4\text{Sn}_{13}$: Evidence for multigap BCS superconductivity
R. Sarkar, F. Brückner, M. Günter, C. Petrovic, K. Wang, H. Luetkens, P. K. Biswas, E. Morenzoni, A. Amato, H.-H. Klauss
Physica B **479**, 51(2015).
28. Superconducting properties and pseudogap from preformed Cooper pairs in the triclinic $(\text{CaFe}_{1-x}\text{Pt}_x\text{As})_{10}\text{Pt}_3\text{As}_8$
M. A. Surmach, F. Brückner, S. Kamusella, R. Sarkar, P. Y. Portnichenko, J. T. Park, G. Ghambashidze, H. Luetkens, P. K. Biswas, W. J. Choi, Y. I. Seo, Y. S. Kwon, H.-H. Klauss, and D. S. Inosov
Physical Review B **91**, 104515(2015).
29. Coexistence of 3d-ferromagnetism and superconductivity in $[(\text{Li}_{1-x}\text{Fe}_x)\text{OH}]\text{Fe}_{1-y}\text{Li}_y\text{Se}$
U. Pachmayr, F. Nitsche, H. Luetkens, S. Kamusella, F. Brückner, R. Sarkar, H.-H. Klauss, and D. Johrendt
Angew. Chem. Int. Ed. **54**, 293(2015).
30. Multigap superconductivity in locally non-centrosymmetric SrPtAs : An ^{75}As nuclear quadrupole resonance investigations
F. Brückner, R. Sarkar, M. Günter, H. Kühne, H. Luetkens, T. Neupert, A. P. Reyes, P. L. Kuhns, P. K. Biswas, T. Sturzer, D. Johrendt, and H.-H. Klauss
Physical Review B **90**, 220503(2014) (**Rapid communication**).
31. Magnetic order and spin dynamics in $\text{La}_2\text{OFe}_2\text{O}_2\text{Se}_2$ probed by ^{57}Fe Moessbauer, ^{139}La NMR, and muon spin relaxation spectroscopy
M. Günter, S. Kamusella, R. Sarkar, T. Goltz, H.-H. Klauss, H. Luetkens, G. Pascua, K.-Y. Choi, and H. Zhou
Physical Review B **90**, 184408(2014).
32. Unconventional magnetism in multivalent charge-ordered YbPtGe_2 probed by ^{195}Pt - and ^{171}Yb - NMR
R. Sarkar, R. Gümeniuk, A. Leithe-Jasper, W. Schnelle, Y. Grin, C. Geibel, and M. Baenitz
Physical Review B **88**, 201101(2013) (**Rapid communication**).
33. Ferromagnetic correlations in heavy fermions from an NMR point of view: YbNi_4P_2 vs YbRh_2Si_2
M. Baenitz, R. Sarkar, P. Khuntia, C. Krellner, C. Geibel, and F. Steglich
Physics Status Solidi C **10**, 540(2013).
34. Static and dynamic susceptibility in the putative ferromagnetic quantum critical system YbNi_4P_2 probed by ^{31}P -NMR
R. Sarkar, P. Khuntia, J. Spehling, C. Krellner, C. Geibel, H.-H. Klauss, and M. Baenitz
Physics Status solidi B **250**, 519-521(2013).
35. YbPtGe_2 : A multivalent charge-ordered system with an unusual spin pseudo-gap
R. Gumeniuk, R. Sarkar, C. Geibel, W. Schnelle, C. Paulmann, M. Baenitz, A. A.

- Tsirlin, V. Guritanu, J. Sichelschmidt, Y. Grin, and A. L. Jasper
Physical Review B **86**, 235138(2012).
36. Ferromagnetic Ordering in CeIr₂B₂: Transport, magnetization, specific heat and NMR studies
A. Prasad, V. K. Anand, U. B. Paramanik, Z. Hossain, **R. Sarkar**, N. Oeschler, M. Baenitz, and C. Geibel
Physical Review B **86**, 014414(2012).
 37. ³¹P NMR investigations on the ferromagnetic quantum critical system YbNi₄P₂
R. Sarkar, P. Khuntia, C. Krellener, F. Steglich, C. Geibel, and M. Baenitz
Physical Review B **85**, 140409(2012) (**Rapid communication**).
 38. Interplay between Fe-3d and Ce-4f magnetism and Kondo interaction in CeFeAs_{1-x}P_xO probed by ⁷⁵As and ³¹P NMR
R. Sarkar, M. Baenitz, A. Jesche, C. Geibel, and F. Steglich
Journal of Physics: Condensed Matter **24**, 135602(2012).
 39. Magnetism and superconductivity in Eu_{0.2}Sr_{0.8}(Fe_{0.86}Co_{0.14})₂As₂ probed by ⁷⁵As NMR
R. Sarkar, P. Khuntia, R. Nath, M. Baenitz, J. Hirale, and P. Gegenwart
Journal of Physics: Condensed Matter **24**, 045702(2012).
 40. Interplay between Co-3d and Ce-4f magnetism in CeCoAsO
R. Sarkar, A. Jesche, C. Mazumdar, A. Poddar, C. Krellner, M. Baenitz, and C. Geibel
Physical Review B **82**, 054423(2010).
 41. Ge-based skutterudites MPt₄Ge₁₂: a comparative ¹⁹⁵Pt NMR study
M. Baenitz, **R. Sarkar**, R. Gumenuik, A. Leithe-Jasper, W. Schnelle, H. Rosner, U. Burkhardt, M. Schmidt, U. Schwarz, D. Kaczorowski, Y. Grin, and F. Steglich
Physics Status Solidi B **247**, 740(2010).
 42. ¹¹B and ¹⁹⁵Pt NMR study of heavy-fermion compound CePt₂B₂C
R. Sarkar, A. Ghoshray, B. Pahari, M. Ghosh, K. Ghoshray, B. Bandyopadhyay, M. Majumder, V K Anand, and Z. Hossain
Journal of Physics: Condensed Matter **21**, 415602(2009).
 43. NMR study of the impurity induced ordered state in the doped Haldane chain compound SrNi_{1.93}Mg_{0.07}V₂O₈
B. Pahari, K. Ghoshray, **R. Sarkar**, and A. Ghoshray
Physical Review B **77**, 224429(2008).
 44. Dielectric relaxation and electronic structure of BaAl_{1/2}Nb_{1/2}O₃: x-ray photoemission and nuclear magnetic resonance studies
A. Dutta, T. P. Sinha, B. Pahari, **R. Sarkar**, K. Ghoshray and S. Shannigrahi
Journal of Physics: Condensed Matter **20**, 445206(2008).
 45. ³¹P NMR of trimer cluster compound Sr₃Cu₃(PO₄)₄
M. Ghosh, K. Ghoshray, B. Pahari, **R. Sarkar**, and A. Ghoshray
Journal of Physics and Chemistry of Solids **68**, 2183-2186(2007).
 46. A comparative study of the magnetic properties and phase separation behavior of the rare earth cobaltates , Ln_{0.5}Sr_{0.5}CoO₃ (Ln = rare earth)

- A. Kundu, **R. Sarkar**, B. Pahari, A. Ghoshray, and C.N.R Rao
Journal of Solid State Chemistry **180**, 1318-1324(2007).
47. Crystal-field calculation of Pr^{3+} in the orthorhombic PrNi_2Al_5 from ^{27}Al NMR Knight shift
R. Sarkar, A. Ghoshray and K. Ghoshray
Journal of Physics: Condensed Matter **19**, 086202(2007).
48. ^{27}Al NMR in ternary intermetallic PrNi_2Al_5
R. Sarkar, A. Ghoshray, B. Pahari, K. Ghoshray, and B. Bandyopadhyay
Journal of Magnetism and Magnetic Materials **310**, 371(2007).
49. NMR study of ^{51}V in quasi-one-dimensional integer spin chain compound $\text{SrNi}_2\text{V}_2\text{O}_8$
B. Pahari, K. Ghoshray, **R. Sarkar**, B. Bandyopadhyay, and A. Ghoshray **Physical Review B** **73**, 012407(2006).
50. ^{51}V NMR study of the quasi-one-dimensional alternating chain compound $\text{BaCu}_2\text{V}_2\text{O}_8$
K. Ghoshray, B. Pahari, B. Bandyopadhyay, **R. Sarkar**, and A. Ghoshray
Physical Review B **71**, 214401(2005).
51. ^{27}Al NMR in grain-aligned ternary intermetallic CeNi_2Al_5 : A dense Kondo compound
R. Sarkar, K. Ghoshray, B. Bandyopadhyay, and A. Ghoshray
Physical Review B **71**, 104421(2005).

Conference paper:

- ^{29}Si NMR study of the heavy fermion system CeRuSi
R. Sarkar, M. Baenitz, J. Sereni, and C. Geibel
Journal of Physics: Condensed Matter Conference Series **200**, 012173(2010).
- Electronic correlation effects in $\text{LnFe}_2\text{Al}_{10}$ ($\text{Ln}=\text{Y}, \text{Yb}$)
A. M. Strydom, P. Peratheepan, **R. Sarkar**, M. Baenitz, and F. Steglich Proc. Int. Conf. Heavy Electrons (ICHE2010)
Journal of the Physical Society of Japan **80**, SA043 c(2011).
- ^{11}B NMR study of possible heavy fermion compound $\text{CePt}_2\text{B}_2\text{C}$
R. Sarkar, A. Ghoshray, B. Pahari, K. Ghoshray, V. K. Anand, and Z. Hossain
AIP conference Proceedings **1003**, 213-215(2008).
- Interplay of magnetism and superconductivity in $\text{EuFe}_2(\text{As}_{1-x}\text{P}_x)_2$ single crystals probed by muon spin-rotation and ^{57}Fe Mössbauer
T. Goltz, S Kamusella, P. Materne, J. Spehling, H. S. Jeevan, P. Gegenwart, **R. Sarkar**, and H.-H. Klauss
Journal of Physics: Conference Series **551**, 012025 (2014).
- CDW order and unconventional s-wave superconductivity in $\text{Ba}_{1-x}\text{Na}_x\text{Ti}_2\text{Sb}_2\text{O}$
S. Kamusella, P. Materne, H. Maeter, **R. Sarkar**, T. Goltz, L. Harnagea, S. Wurmehl, B. Büchner, H. Luetkens, and H.-H. Klauss
Journal of Physics: Conference Series **551**, 012026 (2014).

In referring process:

- Magnetic order and spin dynamics in a helical magnetic system $\text{Fe}_3\text{PO}_4\text{O}_3$
R. Sarkar, S. Kamusella, S. Brauningner, S. Holenstein, H. Luetkens, V. Grinenko, J. Neilson, M. Tarne, K. A. Ross, and H.-H. Klauss
Phy. Rev. B (arXiv:1707.07433).