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Dmytro S. Inosov

Curriculum Vitae

Contact information

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Personal information

Date of birth:	04/23/1979
Place of birth:	Kyiv, Ukraine
Citizenship:	Ukrainian
Family status:	married

Researcher ID: B-6781-2008

Academic degrees

BSc (2000): *Electrophysical and electroluminescent properties of thin organic films.*

MSc (2002): *High-accuracy standardless x-ray fluorescence analysis of metal alloys.*

PhD (2008): *Angle-resolved photoelectron spectroscopy studies of the many-body effects in the electronic structure of high-T_c cuprates* (with honors): thesis available online from Qucosa or from arXiv.

Awards and Honors

2019 Outstanding referee of the *American Physical Society* journals.

2012 Wolfram Prandl Prize for the work on magnetic excitations in iron-based high-T_c superconductors, and especially for the detailed studies of the magnetic resonant mode in the superconducting state.

Education

Postdoctoral research: *Max Planck Institute for Solid State Research*, Stuttgart (2008–2012).

Postgraduate studies: *Institute for Solid State Research* (IFF), IFW-Dresden; Technical University Dresden; *International Max Planck Research School* (IMPRS) for "Dynamical Processes in Atoms, Molecules and Solids", Dresden (2005–2008).

Higher education: *National Technical University of Ukraine*, Kyiv (1996–2002).

Practical courses: *Institute of Physics*, department of Physical Electronics: studies of electrophysical and electroluminescent properties of thin organic films (BSc);
Elvatech Ltd., methodological research and algorithms development for high-accuracy standardless EDXRF analysis of metal alloys (MSc).

Secondary education: Mathematical gymnasium No. 178 in Kiev, Ukraine (1986 – 1996);
music school (1986 – 1992).

Professional background

from April 2019 Associate Professor (W2) for Neutron Spectroscopy of Condensed Matter at the *Institute for Solid State and Materials Physics*, Technical University of Dresden, Germany.

2013 – 2019: Junior Professor (W1) for Neutron Spectroscopy of Condensed Matter at the *Institute for Solid State and Materials Physics*, Technical University of Dresden. Member of the experimental proposal committees at FRM-II (2010 – 2012), ILL (2012 – 2016) and HZB (2015 – 2018).

2010 – 2013: Research group leader at the *Max-Planck-Institute for Solid State Research* (MPI Stuttgart).

2008 – 2010: Postdoc at the *Max-Planck-Institute for Solid State Research* (MPI Stuttgart).

2005 – 2008: PhD student at the *Leibniz Institute for Solid State Physics* (IFW Dresden).

2002 – 2005: Junior research assistant at the *Institute of Physics*, National Academy of Sciences of Ukraine, department of Physical Electronics.

2001 – 2005: *Micro Logic* — technical consultant in a CAD software development project.

2001 – 2003: *Elvatech Ltd.* — development of the analytical software for energy-dispersive x-ray fluorescence (EDXRF) spectrometers *ElvaX*.

1999 – 2001: *Parallel Worlds Ltd.* — development of an automated software complex for digital image processing and pattern recognition in microelectronics applications.

Teaching experience

since 2021: Lecture course *"Statistical Evidence in Experimental Science"* at the TU Dresden.

since 2019: Lecture course *"Grundlagen der Naturwissenschaften"* at the TU Dresden (in German).

since 2019: Lecture course *"Solid State Spectroscopy"* at the TU Dresden.

since 2018: Lecture course *"Condensed Matter Research with X-rays and Neutrons"* at the TU Dresden.

2013 – 2020: Lecture course *"Modern aspects of x-ray and neutron scattering"* at the TU Dresden.

2015 – 2019: Lecture course *"Physik I/II für Ingenieure (Maschinenbauer)"* at the TU Dresden (in German).

2013 – 2018: Lecture course *"Spectroscopy of condensed matter"* at the TU Dresden.

Dec 2012: A series of invited lectures *"Introduction to neutron scattering and spin fluctuations in unconventional superconductors"* at the Faculty of Science, Masaryk University, Czech Republic.

2011 – 2012: Teaching assistant for the *"Solid state spectroscopy"* course at the University of Stuttgart.

Professional interests

Experimental solid state physics, materials science, low-temperature ordering phenomena, magnetism and magnetic fluctuations, magnetic frustration, unconventional superconductivity, highly correlated electron systems, heavy fermions, spectroscopic and diffraction methods, data visualization.

Spoken languages

Russian and Ukrainian (native speaker), English (fluent), German (fluent), French (beginner).

Publication record

Author and coauthor of 120 peer-reviewed articles, among them 29 published in high-ranking journals (Impact Factor > 7.0), on the following topics and experimental methods:

- Magnetic and electronic properties of correlated electron systems and unconventional superconductors;
- Spin arrangements in magnetically ordered materials, magnetic properties of spin glasses;
- Systems with charge (CDW) and spin density wave (SDW) transitions;
- Heavy-fermion systems: electronic structure and magnetic excitations;
- Multipolar ordering phenomena and multipolar excitations in f-electron systems;
- Magnetic vortex structures and skyrmion phases in multiferroics;
- Spin dynamics in ordered magnets, including helimagnets and skyrmimagnets;
- Iron pnictide superconductors: electronic structure and magnetic properties;
- Calculations and measurements of Fermi surfaces and transport properties;
- Theories and models of many-electron systems and of the superconducting state;
- Properties of vortex phases in high-T_c superconductors;
- Intermetallic rare earth compounds: electronic structure, magnetic and optical properties;
- Electronic structure of systems with charge-orbital ordering — manganites;
- Electronic structure of low-dimensional carbon structures.
- Elastic and inelastic neutron scattering (INS), neutron diffraction;
- Angle-resolved photoemission and photoelectron spectroscopy (ARPES);
- Small-angle neutron scattering (SANS);
- Muon-spin rotation (μSR) spectroscopy;
- Nuclear magnetic resonance and relaxation (NMR);
- Magnetic force microscopy (MFM).

Published books

1. D. S. Inosov (ed.); *"Rare-Earth Borides"* (Jenny Stanford Publishing, 2021), ISBN 978-981-4877-56-5.

Complete list of publications (including book chapters and preprints)

120. S. M. Avdoshenko, A. A. Kulbakov, E. Häußler, P. Schlender, Th. Doert, J. Ollivier, D. S. Inosov; *Spin-wave dynamics in the $KCeS_2$ delafossite: A theoretical description of powder inelastic neutron-scattering data*. Phys. Rev. B **106**, 214431 (2022).

119. A. A. Kulbakov, E. Sadrollahi, F. Rasch, M. Avdeev, S. Gaß, L. T. C. Bohorquez, A. U. B. Wolter, M. Feig, R. Gumeniuk, H. Poddig, M. Stötzer, F. J. Litterst, I. Puente-Orench, A. Wildes, E. Weschke, J. Geck,

D. S. Inosov, D. C. Peets; *Incommensurate and multiple-q magnetic misfit order in the frustrated quantum spin ladder material antlerite $Cu_3SO_4(OH)_4$*. Phys. Rev. B **106**, 174431 (2022).

118. A. S. Sukhanov, V. Ukleev, P. Vir, P. Gargiani, M. Valvidares, J. S. White, C. Felser, D. S. Inosov; *Hybrid Bloch-Néel spiral states in $Mn_{1.4}PtSn$ probed by resonant soft x-ray scattering*. Phys. Rev. B **106**, L140402 (2022).

117. A. A. Kulbakov, D. Kononenko, S. Nishimoto, Q. Stahl, A. M. Chakkingal, M. Feig, R. Gumeniuk, Y. Skourski, L. Bhaskaran, S. A. Zvyagin, J. P. Embs, I. Puente-Orench, A. Wildes, J. Geck, O. Janson, D. S. Inosov, D. C. Peets; *Coupled frustrated ferromagnetic and antiferromagnetic quantum spin chains in the quasi-one-dimensional mineral antlerite, $Cu_3SO_4(OH)_4$*. Phys. Rev. B **106**, L020405 (2022).

116. F. Mazza, P. Y. Portnichenko, S. Avdoshenko, P. Steffens, M. Boehm, Eun Sang Choi, M. Nikolo, X. Yan, A. Prokofiev, S. Paschen, D. S. Inosov; *Cascade of magnetic-field-driven quantum phase transitions in $Ce_3Pd_{20}Si_6$*. Phys. Rev. B **105**, 174429 (2022).

115. J. P. Rodriguez, D. S. Inosov, J. Zhao; *Editorial: High-T_c superconductivity in electron-doped iron selenide and related compounds.* Front. Physics **10**, 885420 (2022).

114. R. Ibarra, E. Lesne, B. Ouladdiaf, K. Beauvois, A. S. Sukhanov, R. Wawrzyńczak, W. Schnelle, A. Devishvili, D. S. Inosov, C. Felser, A. Markou; *Noncollinear magnetic order in epitaxial thin films of the centrosymmetric MnPtGa hard magnet.* Appl. Phys. Lett. **120**, 172403 (2022).

113. A. S. Sukhanov, Y. V. Tymoshenko, A. A. Kulbakov, A. S. Cameron, V. Kocsis, H. C. Walker, A. Ivanov, J. T. Park, V. Pomjakushin, S. E. Nikitin, I. V. Morozov, I. O. Chernyavskii, S. Aswartham, A. U. B. Wolter, A. Yaresko, B. Büchner, D. S. Inosov; *Frustration model and spin excitations in the helimagnet FeP*. Phys. Rev. B **105**, 134424 (2022).

112. A. S. Cameron, Y. S. Yerin, Y. V. Tymoshenko, P. Y. Portnichenko, A. S. Sukhanov, M. Ciomaga Hatnean, D. McK. Paul, G. Balakrishnan, R. Cubitt, A. Heinemann, D. S. Inosov; *Singlet-triplet mixing in the order parameter of the noncentrosymmetric superconductor Ru_7B_3*. Phys. Rev. B **105**, 094519 (2022).

111. D. C. Peets, M. Avdeev, M. C. Rahn, F. Pabst, S. Granovsky, M. Stötzer, D. S. Inosov; *Crystal growth, structure, and noninteracting quantum spins in cyanochroite, $K_2Cu(SO_4)_2 \cdot 6H_2O$*. ACS Omega **7**, 5139–5145 (2022).

110. A. A. Kulbakov, S. M. Avdoshenko, I. Puente-Orench, M. Deeb, M. Doerr, P. Schlender, T. Doert, D. S. Inosov; *Stripe-yz magnetic order in the triangular-lattice antiferromagnet $KCeS_2$*. J. Phys.: Condens. Matter **33**, 425802 (2021).

109. P. Y. Portnichenko, A. S. Cameron, D. S. Inosov; *Neutron-scattering studies of spin dynamics in pure and doped CeB_6*; chapter 9 in the review volume *"Rare-Earth Borides"* edited by D. S. Inosov (Jenny Stanford Publishing, 2021), ISBN 978-9-814-87756-5. Preprint: arXiv:2005.07528.

108. D. S. Inosov, S. Avdoshenko, P. Y. Portnichenko, E. S. Choi, A. Schneidewind, J.-M. Mignot, M. Nikolo; *Local origin of the strong field-space anisotropy in the magnetic phase diagrams of $Ce_{1-x}La_xB_6$ measured in a rotating magnetic field.* Phys. Rev. B **103**, 214415 (2021).

107. D. Tsurkan, P. Simon, C. Schimpf, M. Motylenko, D. Rafaja, F. Roth, D. S. Inosov, A. A. Makarova, I. Stepniak, I. Petrenko, A. Springer, E. Langer, A. A. Kulbakov, M. Avdeev, A. R. Stefankiewicz, K. Heimler, O. Kononchuk, S. Hippmann, D. Kaiser, C. Viehweger, A. Rogoll, A. Voronkina, V. Kovalchuk, V. V. Bazhenov, R. Galli, M. Rahimi-Nasrabadi, S. L. Molodtsov, Y. Joseph, C. Vogt, D. V. Vyalikh, M. Bertau, H. Ehrlich; *Extreme Biomimetics: Designing of the First Nanostructured 3D Spongin-Atacamite Composite and its Application.* Adv. Mater. **2021**, 2101682 (2021).

106. 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, D. S. Inosov; *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.* Phys. Rev. B **103**, 024447 (2021).

105. P. Swekis, A. S. Sukhanov, Y.-C. Chen, A. Gloskovskii, G. H. Fecher, I. Panagiotopoulos, J. Sichelschmidt, V. Ukleev, A. Devishvili, A. Vorobiev, D. S. Inosov, S. T. B. Goennenwein, C. Felser, A. Markou; *Magnetic and electronic properties of Weyl semimetal Co_2MnGa thin films.* Nanomaterials **11**, 251 (2021).

104. A. S. Sukhanov, S. E. Nikitin, M. S. Pavlovskii, T. C. Sterling, N. D. Andryushin, A. S. Cameron, Y. V. Tymoshenko, H. C. Walker, I. V. Morozov, I. O. Chernyavskii, S. Aswartham, D. Reznik, D. S. Inosov; *Lattice dynamics in the double-helix antiferromagnet FeP.* Phys. Rev. Research **2**, 043405 (2020).

103. D. S. Inosov, Y. O. Onykiienko, Y. V. Tymoshenko, A. Akopyan, D. Shukla, N. Prasai, M. Doerr, D. Gorbunov, S. Zherlitsyn, D. J. Voneshen, M. Boehm, V. Tsurkan, V. Felea, A. Loidl, J. L. Cohn; *Magnetic field dependence of low-energy magnons, anisotropic heat conduction, and spontaneous relaxation of magnetic domains in the cubic helimagnet $ZnCr_2Se_4$.* Phys. Rev. B **102**, 184431 (2020).

102. A. S. Sukhanov, B. E. Zuñiga Cespedes, P. Vir, A. S. Cameron, A. Heinemann, N. Martin, G. Chaboussant, V. Kumar, P. Milde, L. M. Eng, C. Felser, D. S. Inosov; *Anisotropic fractal magnetic domain pattern in bulk $Mn_{1.4}PtSn$.* Phys. Rev. B **102**, 174447 (2020), Editors' Suggestion.

101. A. S. Sukhanov, A. Heinemann, L. Kautzsch, J. D. Bocarsly, S. D. Wilson, C. Felser, D. S. Inosov; *Robust metastable skyrmions with tunable size in the chiral magnet $FePtMo_3N$.* Phys. Rev. B **102**, 140409(R) (2020).

100. 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. Kühne, V. Grinenko, Z. Guguchia, V. Kataev, H.-H. Klauss, L. Hozoi, J. van den Brink, D. S. Inosov, B. Büchner, A. U. B. Wolter, T. Doert; *Long-range magnetic order in the $\tilde{S} = 1/2$ triangular lattice antiferromagnet $KCeS_2$.* SciPost Phys. **9**, 041 (2020).

99. I. O. Chernyavskii, S. E. Nikitin, Y. A. Onykiienko, D. S. Inosov, Q. Stahl, J. Geck, X. C. Hong, C. Hess, S. Gass, A. U. B. Wolter, D. Wolf, A. Lubk, D. V. Efremov, F. Yokaichiya, S. Aswartham, B. Büchner, and I. V. Morozov; *Incommensurate magnet iron monophosphide FeP: Crystal growth and characterization.* Phys. Rev. Materials **4**, 083403 (2020).

98. R. M. Eremina, T. P. Gavrilova, E. M. Moshkina, I. F. Gilmutdinov, R. G. Batulin, V. V. Gurzhiy, V. Grinenko, D. S. Inosov; *Structure, magnetic and thermodynamic properties of heterometallic ludwigites: Cu_2GaBO_5 and Cu_2AlBO_5.* J. Magn. Magn. Mater. **515**, 167262 (2020).

97. P. Y. Portnichenko, A. Akbari, S. E. Nikitin, A. S. Cameron, A. V. Dukhnenko, V. B. Filipov, N. Yu. Shitsevalova, P. Cermak, I. Radelytskyi, A. Schneidewind, J. Ollivier, A. Podlesnyak, Z. Huesges, J. Xu, A. Ivanov, Y. Sidis, S. Petit, J.-M. Mignot, P. Thalmeier, D. S. Inosov; *Field-angle resolved magnetic excitations as a probe of hidden-order symmetry in CeB_6*. Phys. Rev. X **10**, 021010 (2020).

96. D. S. Inosov; *Ice of higher order*. Nature Physics **16**, 507–508 (2020), News & Views.

95. S. Ishiwata, T. Nakajima, J.-H. Kim, D. S. Inosov, N. Kanazawa, J. S. White, J. L. Gavilano, R. Georgii, K. Seemann, G. Brandl, P. Manuel, D. D. Khalyavin, S. Seki, Y. Tokunaga, M. Kinoshita, Y. W. Long, Y. Kaneko, Y. Taguchi, T. Arima, B. Keimer, Y. Tokura; *Emergent topological spin structures in a centrosymmetric cubic perovskite*. Phys. Rev. B **101**, 134406 (2020), Editors' Suggestion.

94. L. Zhang, Y. A. Onykiienko, P. M. Buhl, Y. V. Tymoshenko, P. Cermák, A. Schneidewind, J. R. Stewart, A. Henschel, M. Schmidt, S. Blügel, D. S. Inosov, Y. Mokrousov; *Magnonic Weyl states in Cu_2OSeO_3*. Phys. Rev. Res. **2**, 013063 (2020), Editors' Suggestion.

93. A. S. Sukhanov, Y. A. Onykiienko, R. Bewley, C. Shekhar, C. Felser, D. S. Inosov; *Magnon spectrum of the Weyl semimetal half-Heusler compound GdPtBi*. Phys. Rev. B **101**, 014417 (2020).

92. A. S. Sukhanov, P. Vir, A. Heinemann, S. E. Nikitin, D. Kriegner, H. Borrmann, C. Shekhar, C. Felser, D. S. Inosov; *Giant enhancement of the skyrmion stability in a chemically strained helimagnet*. Phys. Rev. B **100**, 180403(R) (2019).

91. A. S. Sukhanov, P. Vir, A. S. Cameron, H. C. Wu, N. Martin, S. Mühlbauer, A. Heinemann, H. D. Yang, C. Felser, D. S. Inosov; *Increasing skyrmion stability in Cu_2OSeO_3 by chemical substitution*. Phys. Rev. B **100**, 184408 (2019).

90. A. S. Cameron, Y. S. Yerin, Y. V. Tymoshenko, P. Y. Portnichenko, A. S. Sukhanov, M. Ciomaga Hatnean, D. Mc K. Paul, G. Balakrishnan, R. Cubitt, A. Heinemann, D. S. Inosov; *Rotation of the magnetic vortex lattice in Ru_7B_3 driven by the effects of broken time-reversal and inversion symmetry*. Phys. Rev. B **100**, 024518 (2019).

89. A. S. Sukhanov, M. S. Pavlovskii, Ph. Bourges, H. C. Walker, K. Manna, C. Felser, D. S. Inosov; *Magnon-polaron excitations in the noncollinear antiferromagnet Mn_3Ge*. Phys. Rev. B **99**, 214445 (2019).

88. P. Y. Portnichenko, S. E. Nikitin, A. Prokofiev, S. Paschen, J.-M. Mignot, J. Ollivier, A. Podlesnyak, S. Meng, Z. Lu, D. S. Inosov; *Evolution of the propagation vector of antiferroquadrupolar phases in $Ce_3Pd_{20}Si_6$ under magnetic field*. Phys. Rev. B **99**, 214431 (2019).

87. J. Kroder, K. Manna, D. Kriegner, A. S. Sukhanov, E. Liu, H. Borrmann, A. Hoser, J. Gooth, W. Schnelle, D. S. Inosov, G. H. Fecher, C. Felser; *Spin-glass behavior in the disordered half-Heusler compound IrMnGa*. Phys. Rev. B **99**, 174410 (2019).

86. D. S. Inosov; *Quantum magnetism in minerals*. Advances in Physics **67**, 149–252 (2018).

85. M. Baenitz, Ph. Schlender, J. Sichelschmidt, Y. A. Onykiienko, 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; *$NaYbS_2$: A planar spin-1/2 triangular-lattice magnet and putative spin liquid*. Phys. Rev. B **98**, 220409(R) (2018).

84. S. E. Nikitin, L. S. Wu, A. S. Sefat, K. A. Shaykhutdinov, Z. Lu, S. Meng, E. V. Pomjakushina, K. Conder, G. Ehlers, M. D. Lumsden, A. I. Kolesnikov, S. Barilo, D. S. Inosov, A. Podlesnyak; *Decoupled spin dynamics in the rare-earth orthoferrite $YbFeO_3$: Evolution of magnetic excitations through the spin-reorientation transition*. Phys. Rev. B **98**, 064424 (2018).

83. Z.-X. Sun, A. Maldonado, W. S. Paz, D. S. Inosov, A. P. Schnyder, J. J. Palacios, N. Y. Shitsevalova, V. B. Filippov, P. Wahl; *Observation of a well-defined hybridization gap and in-gap states on the SmB_6 (001) surface*. Phys. Rev. B **97**, 235107 (2018).

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81. V. B. Zabolotnyy, K. Fursich, R. J. Green, P. Lutz, K. Treiber, C.-H. Min, A. V. Dukhnenko, N. Y. Shitsevalova, V. B. Filipov, B. Y. Kang, B. K. Cho, R. Sutarto, F. He, F. Reinert, D. S. Inosov, V. Hinkov; *Chemical and valence reconstruction at the surface of SmB_6 revealed with resonant soft x-ray reflectometry*. Phys. Rev. B **97**, 205416 (2018).

80. M. A. Surmach, B. J. Chen, Z. Deng, C. Q. Jin, J. K. Glasbrenner, I. I. Mazin, A. Ivanov, D. S. Inosov; *Weak doping dependence of the antiferromagnetic coupling between nearest-neighbor Mn^{2+} spins in $(Ba_{1-x}K_x)(Zn_{1-y}Mn_y)_2As_2$*. Phys. Rev. B **97**, 104418 (2018).

79. S. E. Nikitin, P. Y. Portnichenko, A. V. Dukhnenko, N. Yu. Shitsevalova, V. B. Filipov, Y. Qiu, J. A. Rodriguez-Rivera, J. Ollivier, D. S. Inosov; *Doping-induced redistribution of magnetic spectral weight in substituted hexaborides $Ce_{1-x}La_xB_6$ and $Ce_{1-x}Nd_xB_6$*. Phys. Rev. B **97**, 075116 (2018).

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netism of coupled spins and pseudospins in the double perovskite La_2CuIrO_6. Phys. Rev. B **94**, 144437 (2016).

73. P. Y. Portnichenko, S. V. Demishev, A. V. Semeno, H. Ohta, A. S. Cameron, M. A. Surmach, H. Jang, G. Friemel, A. V. Dukhnenko, N. Yu. Shitsevalova, V. B. Filipov, A. Schneidewind, J. Ollivier, A. Podlesnyak, D. S. Inosov; *Magnetic field dependence of the neutron spin resonance in CeB_6*. Phys. Rev. B **94**, 035114 (2016).

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4. V. B. Zabolotnyy, S. V. Borisenko, A. A. Kordyuk, J. Geck, D. S. Inosov, A. Koitzsch, J. Fink, M. Knupfer, B. Büchner, V. Hinkov, B. Keimer, R. Follath; *Anomalous surface overdoping as a clue to the puzzling electronic structure of YBCO-123*. Physica C **460–462**, 888 (2007).

3. A. Koitzsch, S. V. Borisenko, D. S. Inosov, J. Geck, V. B. Zabolotnyy, H. Shiozawa, M. Knupfer, J. Fink, B. Büchner, E. D. Bauer, J. L. Sarrao, R. Follath; *Observing the heavy fermions in $CeCoIn_5$ by angle-resolved photoemission*. Physica C **460–462**, 666 (2007).

2. S. Borisenko, A. Kordyuk, V. Zabolotnyy, J. Geck, D. S. Inosov, A. Koitzsch, J. Fink, M. Knupfer, B. Büchner, V. Hinkov, C. T. Lin, B. Keimer, T. Wolf, S. G. Chiuzbaian, L. Patthey, R. Follath; *Kinks, nodal bilayer splitting, interband scattering in $YBa_2Cu_3O_{6+x}$*. Phys. Rev. Lett. **96**, 117004 (2006).

1. R. D. Fedorovich, D. S. Inosov, O. E. Kiyaev, S. P. Lukyanets, A. A. Marchenko, P. M. Tomchuk, D. A. Bevzenko, A. G. Naumovets; *Conductivity of island metal films covered with organic molecules*. J. Mol. Struct. **708**, 67 (2004).

Conference contributions, invited talks and lectures

- University of Bristol, UK. Condensed Matter Seminar, 2023 (invited seminar talk).
- DPG Spring Meeting. *Magnetism: Disordered Magnetic Materials*, Regensburg, 2022 (oral contribution).
- ICNS 2022. *International Conference on Neutron Scattering*, Buenos Aires, Argentina (oral contribution).
- SCES 2020/21. *Int. Conference on Strongly Correlated Electron Systems*, online, 2021 (oral contribution).
- CCFES 2021. *Cracow Colloquium on f-electron systems*, online, 2021 (oral contribution).
- SCES 2019. *Int. Conference on Strongly Correlated Electron Systems*, Okayama, Japan, 2019 (poster).
- Superstripes 2019. *Quantum Physics in Complex Matter*, Ischia, Italy, 2019 (invited talk).
- DPG Spring Meeting. *Magnetic textures: Transport and dynamics*, Regensburg, 2019 (oral contribution).
- APS March Meeting. *Session on Heavy Fermions*, Boston, 2019 (oral contribution).
- ILL & ESS User Meeting 2018. *ILL & ESS European User Meeting*, Grenoble, France, 2018 (invited talk).
- SNI 2018. *German Conf. for Research at Large Facilities*, Garching, Germany, 2018 (keynote lecture).
- ICSM 2018. *6th Intern. Conf. on Superconductivity and Magnetism*, Antalya, Turkey, 2018 (invited talk).
- DPG Spring Meeting. *Focus session on "Spintronics"*, Berlin, 2018 (oral contribution).
- APS March Meeting. *Quant. Criticality & Novel Phases in Multipolar Systems*, Los Angeles, 2018 (invited talk).
- MSM '17. *10th Int. Conference on Magnetic and Superconducting Materials*, Tehran, Iran, 2017 (talk).
- LT28. *28th International Conference on Low-Temperature Physics*, Gothenburg, Sweden, 2017 (talk).
- TOPO 2017. *International Workshop on Topological Structures in Ferroic Materials*, Leeds, UK, 2017 (talk).
- SCES 2017. *Int. Conference on Strongly Correlated Electron Systems*, Prague, Czech Republic, 2017 (talk).
- ICNS 2017. *International Conference on Neutron Scattering*, Daejeon, Korea, 2017 (talk).
- QCNP 2017. *Quantum Criticality & Novel Phases*, Berlin, Germany, 2017 (poster).
- SFB Conference *Correlated Magnetism: From Frustration to Topology*, Nimbschen, Germany, 2016 (talk).
- Gordon Research Conference. *Multiferroic & Magnetoelectric Materials*, Lewiston, USA, 2016 (poster).
- APS March Meeting. *URu_2Si_2 and Other Related Heavy Fermions*, Baltimore, USA, 2016 (oral contribution).
- DPG Spring Meeting. *Correlated Electrons: Frustrated Magnets*, Regensburg, 2016 (oral contribution).
- NGSCES'15. *New Generation in Strongly Correlated Electron Systems*, Trogir, Croatia, 2015 (talk).
- ECNS 2015. *VI European Conference on Neutron Scattering*, Zaragoza, Spain, 2015 (oral contribution).
- M^{2}S 2015. *Materials and Mechanisms of Superconductivity*, Geneva, Switzerland, 2015 (oral contribution).
- AOCNS'15. *2nd Asia-Oceania Conference on Neutron Scattering*, Sydney, Australia, 2015 (oral contribution).

- Superstripes 2015. *Quantum Physics in Complex Matter*, Ischia, Italy, 2015 (invited talk).
- DPG Spring Meeting. *Superconductivity: Fe-based Superconductors*, Berlin, 2015 (oral contribution).
- SCES 2014. *Int. Conference on Strongly Correlated Electron Systems*, Grenoble, France, 2014 (invited talk).
- EMN Summer Meeting 2014. *Energy, Materials, Nanotechnology*, Cancun, Mexico, 2014 (invited talk).
- DPG Spring Meeting. *Correlated Electrons: Heavy Fermions*, Dresden, 2014 (oral contribution).
- JCNS Workshop 2013. *Trends and Perspectives in Neutron Scattering*, Tutzing, Germany, 2013 (invited talk).
- HTS 2013. Workshop *"Hot Topics in HTSC: Fe-Based Superconductors"*, Moscow, Russia, 2013 (invited talk).
- FHS'13. *Recent Developments in Fe-based High-T_c Superconductors*, Long Island, USA, 2013 (invited talk).
- ICNS 2013. *International Conference on Neutron Scattering*, Edinburgh, UK, 2013 (contributed talk).
- Superstripes 2013. *Superconductivity, Magnetism and Ferroelectricity*, Ischia, Italy, 2013 (invited talk).
- APS March Meeting. *Fe-based Superconductors: Novel Selenides*, Baltimore, USA, 2013 (invited talk).
- РФМС'13. *10th International Ural Seminar*, Kyshtym, Russia, 2013 (invited talk).
- ФКС'13. *47th school on Condensed Matter Physics*, ПИЯФ, St. Petersburg, Russia, 2013 (invited lecture).
- Rydberg Meetings. Regular seminar of the Lund University and the ESS, Lund, 2012 (invited lecture).
- *Innolec*. Innovation Lectures in Physics, Masaryk University, Czech Republic, 2012 (invited lectures).
- DN-2012. *Deutsche Neutronenstreutagung*, GSI-Bonn, Germany, 2012 (Wolfram-Prandl Prize lecture).
- M^{2}S 2012. *Materials and Mechanisms of Superconductivity*, Washington, D. C., 2012 (invited talk).
- ICM 2012. *19th International Conference on Magnetism*, BEXCO, Busan, Korea, 2012 (contributed talk).
- NGSCES'12. *New Generation in Strongly Correlated Electron Systems*, Portoroz, Slovenia, 2012 (talk).
- 2012 EMN Meeting. *Villa Conference on Iron-based Superconductors*, Orlando, Florida, 2012 (invited talk).
- DPG Spring Meeting. *Correlated Electrons: Heavy Fermions*, Berlin, 2012 (contributed talk).
- ESS Symposium, Spin Dynamics of Correlated Electron Systems, Abingdon, UK, 2012 (invited talk).
- Séminaire LLB, Condensed matter seminar, LLB, Saclay, France, 2011 (invited seminar talk).
- E-MRS'11 Fall Meeting. *Symposium on Fe-based superconductors*, Warsaw, Poland, 2011 (contributed talk).
- ECNS 2011. *5th European Conference on Neutron Scattering*, Prague, Czech Rep., 2011 (contributed talk).
- NGSCES'11. *New Generation in Strongly Correlated Electron Systems*, Santiago de Compostela, 2011 (talk).
- Spin Waves 2011. *International Symposium on Spin Waves*, St. Petersburg, Russia, 2011 (contributed talk).
- *Ringberg Symposium on High Temperature Superconductivity*, Ringberg, Germany, 2011 (invited talk).
- APS March Meeting. *Gap Structure of the Ba-122 Iron Superconductors*, Dallas, USA, 2011 (invited talk).
- ФКС'11. *45th school on Condensed Matter Physics*, ПИЯФ, St. Petersburg, Russia, 2011 (invited lecture).
- SENSE 2010. *Superconductivity Explored by Neutron Scattering Experiments*, Grenoble, 2010 (invited talk).
- CSMAG'10. *14th Czech and Slovak Conference on Magnetism*, Košice, Slovakia, 2010 (invited talk).

- NGSCES'10. *New Generation in Strongly Correlated Electron Systems*, Lanzarote, 2010 (contributed talk).
- PCFES-9. *9th Prague Colloquium on f-Electron Systems*, Prague, Czech Rep., 2010 (contributed talk).
- FESC 2010. *Electronic Structure of Fe-based Superconductors*, Stuttgart, Germany, 2010 (invited talk).
- ICSM 2010. *Intern. Conf. on Superconductivity and Magnetism*, Antalya, Turkey, 2010 (contributed talk).
- Workshop FOR538. *Properties of high temperature superconductors*, Munich, Germany, 2010 (poster).
- DPG Spring Meeting. *Focus session on iron-based superconductors*, Regensburg, 2010 (contributed talk).
- CMMP'09. *Condensed Matter and Material Physics*, Warwick, UK, 2009 (contributed talk).
- EUCAS'09. *European Conference on Applied Superconductivity*, Dresden, Germany, 2009 (contributed talk).
- ICM'09. *International Conference on Magnetism*, Karlsruhe, Germany, 2009 (poster).
- CORPES'09. *Strong Correlations and ARPES*, Zürich, Switzerland, 2009 (poster).
- 2nd FRM II User Meeting. Technische Universität München, Garching, 2009 (contributed talk).
- "Structure and properties of condensed matters" seminar, TU Chemnitz, Germany, 2009 (invited talk).
- DPG Spring Meeting. *Spring Meeting of the Section Condensed Matter*, Dresden, 2009 (contributed talk).
- Workshop FOR538. *Properties of Cuprate Superconductors III*, Ringberg, Germany, 2008 (contributed talk).
- CORPES'07. *Strong Correlations and ARPES*, Dresden, Germany, 2007 (seminar talk).
- M^{2}S-HTSC-VIII. *Materials and Mechanisms of Superconductivity*, Dresden, Germany, 2006 (poster).
- DPG Spring Meeting. *21st General Conference of the Condensed Matter Division*, Dresden, 2006 (poster).