

CURRICULUM VITAE

Dr. Alberto Marmodoro

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1. Education

- 2012: **Ph.D. in Physics** at the Department of Physics, University of Warwick, United Kingdom.
Supervisors: Prof. Julie B. Staunton (University of Warwick, United Kingdom) / Prof. Arthur Ernst (MPI-Halle, Germany),
Thesis title: “Beyond single-site disorder effects in first-principles studies of solid state systems”,
degree date: 05/III/2012;
- 2008: **Master in Physics** at the Department of Physics, University of Copenhagen, Denmark.
Supervisors: Prof. Per Hedegaard / Prof. Brian Moeller Andersen,
Thesis title: “A model for angle-resolved photoemission spectroscopy in the cuprates high-Tc superconductors”, degree date: 16/I/2008;
- 2005: **Bachelor in Physics** at the Department of Physics, University of Trieste, Italy.
Supervisor: Prof. Fabio Benatti,
Thesis title: “The Gallavotti-Cohen fluctuation theorem”, degree date: 20/XII/2005;
- 1999: **High school degree** (maturità classica) at the Liceo Classico Statale “Tito Livio“, Padova, Italy.

2. Research positions

- 19/II/2024 – present: **Associate researcher** (“Vědecký pracovník podílející se na pedagogické činnosti”),
Czech Technical University (Prague, Czech Republic);
- 1/VII/2023 – present: **Associate researcher** (post-doc) in the New Technologies Center of the University of West Bohemia (Plzen, Czech Republic), research group “Computational & experimental design of advanced materials with new functionalities,, (CEDAMNF) of Prof. Jan Minar;
- 1/I/2023 – present: **Scientist** (“Vědecký Pracovník” - V5) in the Czech Academy of Sciences (AS CR),
Institute of Physics (FZU), Division of Solid State Physics (Prague, Czech Republic),
Department 19 “Structure Analysis” of Dr. Michal Dušek;
- 11/VIII/2024 – 12/IX/2024: **Guest researcher** at the Mellon College of Science / Pittsburgh Super-Computing Center (PSC), Carnegie Mellon University (Pittsburgh, PA, USA),
research group of Prof. Michael Widom and Dr. Yang Wang;
- 1/II/2023 – 31/IV/2023: **Guest researcher** at the Nano-systems from Ions, Spins and Electrons (NISE) of

Prof. Stuart Parkin, Max-Planck Institut für Mikrostrukturphysik (Halle, Germany),
research group of Dr. Annika Johansson;

- 1/II/2020 – 31/XII/2022: **Associate scientist** (“Vědecký Asistent”) in the Czech Academy of Sciences Institute of Physics (FZU), Division of Solid State Physics (Prague, Czech Republic), Department 15 “Spintronics & Nanoelectronics” of Prof. Tomas Jungwirth;
- 1/I/2020 – 25/I/2020: **Guest researcher** at the joint Graduate School of Science and Engineering, University of Chiba (Chiba, Japan), Division of Material Science, research group of Prof. Peter Krüger;
- 1/III/2017 – 31/XII/2019: **Post-doc** with occasional assistant teaching duties in the Ludwig-Maximilians-Universität (Munich, Germany), Department of Chemistry, Physical Chemistry / Solid State Physics research group of Prof. Hubert Ebert;
- 1/X/2016 – 28/II/2017: **Post-doc** in the Technical-Universität Darmstadt (Germany), Department of Material Science, Theory of Magnetic Materials research group of Prof. Hongbin Zhang;
- 1/V/2016 – 30/IX/2016: **Post-doc** in the Goethe Universität (Frankfurt am Main, Germany), Department of Physics, Institut für Theoretische Physik, research group of Prof. Roser Valenti;
- 1/I/2016 – 31/III/2016: **Guest researcher** at the National Institute of Advanced Industrial Science and Technology (AIST), Research Center for Computational Design of Advanced Functional Materials (Tsukuba, Japan), research group of Dr. Takashi Miyake;
- 1/X/2011 – 30/IV/2016: **Post-doc** in the Max-Planck Institut für Mikrostrukturphysik (Halle, Germany), Theory Department of Prof. Eberhard Gross, electronic structure research group of Prof. Arthur Ernst, with occasional assistant teaching duties at Martin Lüther Universität (Halle, Germany);
- 1/I/2008 – 5/IV/2012: **PhD student** with assistant teaching duties at the University of Warwick (Coventry, United Kingdom), Department of Physics, electronic structure research group of Prof. Julie Staunton.

3. Scientific output

3.1 Overview of the scientific production (source: Google Scholar, November 2024)

H index: 12

Nr. of citations: 453

29 research articles published on international peer-reviewed journals

14 invited seminars at research institutes / universities.

18 talks and **27 poster presentations** at international conferences & workshops.

Other research identifiers:

0000-0003-4174-9643 (ORCID),
K-4317-2015 (Web of Science)

3.2 Publications

- "Atomistic spin dynamics simulations of magnonic spin Seebeck and spin Nernst effects in altermagnets" by M.Weissenhofer, A.Marmodoro, **Phys.Rev.B 110 (9), 094427 2024**, DOI: <https://doi.org/10.1103/PhysRevB.110.094427>
- "Temperature dependence of relativistic valence band splitting induced by an altermagnetic phase transition" by M.Hajlaoui, S.D'Souza, L.Šmejkal, D.Kriegner, G.Krizman, T.Zakusylo, N.Olszowska, O.Caha, J.Michalička, A.Marmodoro, K.Výborný, A.Ernst, M.Cinchetti, J.Minar, T.Jungwirth, G.Springholz, **Advanced Materials, 2314076, 2024**, DOI: <https://doi.org/10.1002/adma.202314076>;
- "Revisiting Electronic Topological Transitions in the Silver-Palladium Solid Solution: An Experimental and Theoretical Investigation" by F.Reiter, A.Marmodoro, A.Mardare, C.Mardare, A.Hassel, A.Ernst, M.Hoffmann, **Materials Physics, 17(11), 2743, 2024**, DOI: <https://doi.org/10.3390/ma17112743>;
- "Influence of a static electric field on magnetic materials monitored by X-ray magnetic circular dichroism" by H.Ebert, S.Mankovsky, A.Marmodoro, E.Simon, **Journal of Electron Spectroscopy and Related Phenomena, 147386, 2023**, DOI: <https://doi.org/10.1016/j.elspec.2023.147386>
- "Chirality-inverted Dzyaloshinskii-Moriya interaction" by K.Zakeri, A.Marmodoro, A. von Faber, S.Mankovsky, H.Ebert, **Phys.Rev.B 108, L100403, 2023**, DOI: <https://doi.org/10.1103/PhysRevB.108.L100403>;
- "Chiral magnons in altermagnetic RuO₂" by L.Šmejkal, A.Marmodoro, K.-H.Ahn, R.Gonzalez-Hernandez, I.Turek, S.Mankovsky, H.Ebert, S.D'Souza, O.Šipr, J.Sinova, T.Jungwirth, **Phys.Rev.Lett. 131, 256703 2023**, DOI: <https://doi.org/10.1103/PhysRevLett.131.256703>;
- "High-throughput Design of Magnetocaloric Materials for Energy Applications: MM'X alloys" by N.Fortunato, A.Taubel, A.Marmodoro, L.Pfeuffer, I.Ophale, H.Ebert, O.Gutfleisch, H.Zhang, **Advanced Science, 2206772, 2023**, DOI: <https://doi.org/10.1002/advs.202206772>;
- "Temperature-induced changes in the magnetism of Laves phase rare-earth-iron intermetallics by ab initio calculations" by O.Šipr, S.Mankovsky, J.Vackář, H.Ebert, A.Marmodoro, **Phys.Rev.B 106, 144416, 2022**, DOI: <https://doi.org/10.1103/PhysRevB.106.144416>
- "Role of spin-orbit coupling in canted ferromagnetism and spin-wave dynamics of SrRuO₃" by K.-H. Ahn, A.Marmodoro, J.Hejtmánek, Z.Jirák, K.Knížek, **Phys.Rev.B 105, 245107, 2022**, DOI: <https://doi.org/10.1103/PhysRevB.105.245107>
- "Electric field control of magnons in magnetic thin films: ab initio predictions for 2D metallic heterostructures" by A.Marmodoro, S.Mankovsky, H.Ebert, J.Minár, O.Šipr, **Phys.Rev.B 105, 174411, 2022**, DOI: <https://doi.org/10.1103/PhysRevB.105.174411>
- "Atomically sharp domain walls in an antiferromagnet" by F.Krizek, S.Reimers, Z.Kašpar, A.Marmodoro, J.Michalička, O.Man, A.Edström, O.Amin, K.Edmonds, R.Campion, F.Maccherozzi, S.Dhesi, J.Zubáč, D.Kriegner, D.Carbone, J.Železný, K.Výborný, K.Olejník, V.Novák, J.Rusz, J.-C.Idrobo, P.Wadley, T.Jungwirth, **Science Advances 8, 13, abn3535, 2022**, DOI: <https://doi.org/10.1126/sciadv.abn3535>
- "Single-crystal studies and electronic structure investigation of the room-temperature semiconductor NaMnAs" by J.Volný, K.Charvátová, M.Veis, V.Holý, M.Vondráček, J.Honolka, E.Duverger-Nédellec, J.Schusser, S.D'Souza, J.Minár, J.Pientka, A.Marmodoro, K.Výborný, K.Uhlířová, **Phys.Rev.B 105, 125204, 2022**, DOI: <https://doi.org/10.1103/PhysRevB.105.125204>

- “Electric-field control of the exchange interactions” by S.Mankovsky, E.Simon, S.Polesya, A.Marmodoro, H.Ebert, **Phys.Rev.B** **104**, 174443, 2021, DOI: <https://doi.org/10.1103/PhysRevB.104.174443>
- “Surface band characters of Weyl semimetal candidate material MoTe2 revealed by one-step ARPES theory” by R.Ono, A.Marmodoro, J.Schusser, Y.Nakata, E.Schwier, J.Braun, H.Ebert, J.Minár, K.Sakamoto, P.Krüger, **Phys.Rev.B** **103**, 125139, 2021, DOI: <https://doi.org/10.1103/PhysRevB.103.125139>
- “Theoretical study on the electric field effect on magnetism of Pd/Co/Pt thin films” by E.Simon, A.Marmodoro, S.Mankovsky, H.Ebert, **Phys.Rev.B** **103**, 064406, 2021, DOI: <https://doi.org/10.1103/PhysRevB.103.064406>
- “First-principles calculations of steady-state voltage-controlled magnetism: Application to x-ray absorption spectroscopy experiments” by A.Marmodoro, S.Wimmer, O.Šipr, M.Ogura, H.Ebert, **Phys.Rev.Res.** **2**, 032067(R), 2020, DOI: <https://doi.org/10.1103/PhysRevResearch.2.032067>
- “Effect of correlation and disorder on the spin-wave spectra of Pd₂MnSn, Ni₂MnSn and Cu₂MnAl Heusler alloys: A first-principles study” by G.Fischer, X.Zubizarreta, A.Marmodoro, M.Hoffmann, P.Buczek, N.Buczek, M.Däne, W.Hergert, E.Sasioglu, I.Galanakis, A.Ernst, **Phys.Rev.Mat.** **4**, 064405, 2020, DOI: <https://doi.org/10.1103/PhysRevMaterials.4.064405>
- “Spin Waves in Disordered Materials” by P.Buczek, S.Thomas, A.Marmodoro, N.Buczek, X.Zubizarreta, M.Hoffmann, T.Balashov, W.Wulfhekel, K.Zakeri, A.Ernst, **J.Phys.Cond.Mat.** **30**, 423001, 2018, DOI: <https://doi.org/10.1088/1361-648X/aadefb>
- “Spin waves in disordered materials” by P. Buczek, S. Thomas, A. Marmodoro, N. Buczek, X. Zubizarreta, M. Hoffmann, K. Zakeri, A. Ernst, **Psi-k highlight of the month**, **138**, 2017, URL: https://psi-k.net/download/highlights/Highlight_138.pdf
- “Short-range ordering effects on the electronic Bloch's spectral function of real materials in the non-local coherent-potential approximation” by A.Marmodoro, A.Ernst, S.Ostanin, L.Sandratskii, P.Trevisanutto, N.Lathiotakis, J.Staunton, **Phys.Rev.B** **94**, 224205, 2016, DOI: <https://doi.org/10.1103/PhysRevB.94.224205>
- “Quantitative description of short-range order and its influence on the electronic structure in Ag-Pd alloys” by M.Hoffmann, A.Marmodoro, A.Ernst, W.Hergert, J.Dahl, J.Lång, P.Laukkanen, M.Punkkinen, K.Kokko, **J.Cond.Mat.Phys.** **28**, 305501, 2016, DOI: <https://doi.org/10.1088/0953-8984/28/30/305501>
- “Long-living terahertz magnons in ultrathin metallic ferromagnets” by H.Qin, K.Zakeri, A.Ernst, L.Sandratskii, P.Buczek, A.Marmodoro, T.-H.Chuang, Y.Zhang, J.Kirschner, **Nat.Comm.** **6**, 7126, 2015, DOI: <https://doi.org/10.1038/ncomms7126>
- “Using Density Functional Theory to describe slowly varying fluctuations at finite temperatures: local magnetic moments in Gd and the 'not so local' moments of Ni” by J.Staunton, A.Marmodoro, A.Ernst, **J.Phys.Cond.Mat.** **26**, 274210, 2014, DOI: <https://doi.org/10.1088/0953-8984/26/27/274210>
- “Tuning the exchange interaction in diluted magnetic binary chalcogenides” by M.Vergniory, D.Thonig, M.Hoffmann, I.Maznichenko, M.Geilhufe, M.Otrokov, X.Zubizarreta, S.Ostanin, A.Marmodoro, J.Henk, W.Hergert, I.Mertig, E.Chulkov, A.Ernst, **Phys.Rev.B** **89**, 165202, 2014, DOI: <https://doi.org/10.1103/PhysRevB.89.165202>
- “Chirality dependent magnon lifetime in a compensated half-metallic ferrimagnet” by M.Odashima, A.Marmodoro, P.Buczek, A.Ernst, L.Sandratskii, **Phys.Rev.B** **87**, 174420, 2013, DOI: <https://doi.org/10.1103/PhysRevB.87.174420>

- “Generalized inclusion of short range ordering effects in the coherent potential approximation for complex unit cell materials” by A.Marmodoro, A.Ernst, S.Ostanin, J.Staunton, **Phys.Rev.B** **87**, 125115, 2013, DOI: <https://doi.org/10.1103/PhysRevB.87.125115>
- “First-principles design of magnetic oxides” by A.Ernst, G.Fischer, P.Buczek, S.Ostanin, I.Maznichenko, M.Hoffmann, W.Hergert, L.Bekenov, V.Antonov, I.Mertig, J.Staunton, N.Sanchez, L.Petit, Z.Szotek, **Psi-k highlight of the month**, **112**, 2012, URL: https://psi-k.net/download/highlights/Highlight_112.pdf
- “Elastic anomalies and long/short range ordering effects: a first principles investigation of the Ag_{c}Pd_{1-c} solid solution“ by M.Hoffmann, A.Marmodoro, E.Nurmi, K.Kokko, L.Vitos, A.Ernst, W.Hergert, **Phys.Rev.B** **86**, 094106, 2012, DOI: <https://doi.org/10.1103/PhysRevB.86.094106>
- “Disorder in materials with complex crystal structures: the Non-Local Coherent Potential Approximation for compounds with multiple sublattices” by A.Marmodoro, J.Staunton, **J.Phys.Conf. Series**, **286**, 2011, DOI: <https://doi.org/10.1088/1742-6596/286/1/012033>
- “An ab initio investigation of how residual resistivity can decrease when an alloy is deformed” by S.Lowitzer, D.Ködderitzsch, H.Ebert, P.Tulip, A.Marmodoro, J.Staunton, **EuroPhys. Lett.**, **92**, 37009, 2010, DOI: <https://doi.org/10.1209/0295-5075/92/37009>

3.3 Contributions to conferences, seminars and poster presentations

- Oral presentation: “Toward the smallest solenoid: some steps in the study of magnetoelectric effects via ab initio electronic structure theory”, Mellon College of Science, Department of Physics, Carnegie Mellon University, Pittsburgh, PA, USA (August 2024).
- Oral presentation: “Ab-initio study of x-ray circular dichroism in chiral crystals: disentangling magnetic & natural cross-sections”, DPG Spring meeting, Technical Universität Berlin, Germany (March 2024).
- Oral presentation: “Chirality induced spin selectivity (CISS) in linear response generalized transport and XAS/XCD within the inorganic Strukturbericht B20 crystal family”, 6th ‘Electron & Spin Dynamics’ workshop, Cergy-Paris Université, Paris, France (December 2023).
- Oral presentation: “Ab-initio studies of magnetoelectric effects in inorganic bulks & 2D heterostructures within a KKR-GF DFT framework”, invited seminar at the Theory and Numerical Simulations department of the Centre Interdisciplinaire de Nanoscience de Marseille (CINaM), Marseille, France (May 2023).
- Oral presentation: “Chirality induced spin selectivity (CISS) in inorganic 3D crystals: Ab initio investigations of some transport & spectroscopy features”, DPG Spring meeting, Technical Universität Dresden, Germany (March 2023).
- Oral presentation: “Ab-initio studies of magnetic excitations in RuO₂”, DPG Spring meeting, Technical Universität Dresden, Germany (March 2023).
- Oral presentation: “Chirality induced spin selectivity (CISS) in inorganic 3D crystals: Ab initio investigations of some transport & spectroscopy features”, invited group seminar at the Martin-Luther Universität Halle-Wittenberg, Germany (March 2023).
- Oral presentation: “Ab-initio studies of magnetic materials within a multiple scattering KKR-DFT Green's function formalism: Approximated response to steady-state Efield perturbations, dynamical susceptibility calculations & possible insight for AF spintronics“, invited group seminar at the Institut für Festkörperphysik, Technische Universität Wien, Austria (December 2022).

- Oral presentation: “Ab-initio studies of magnetic excitations in RuO₂“, invited seminar at the Department of Condensed Matter Theory, Institute of Physics / Czech Academy of Science, Prague, Czech Republic (September 2022).
- Oral and poster presentation: École de Physique des Houches “The Multiple Scattering Green's Function Approach to Electronic Structure and Spectroscopy Calculations“, Les Houches, France (September 2021).
- Oral presentation: “Controlling magnons spectra through electric field: approximations and predictions at an ab-initio level“, informal seminar, Institute of Physics / Karlsruhe Institute of Technology, Karlsruhe, Germany (August 2021).
- Oral presentation: “Ab initio studies of electric-field-controlled magnetism“, invited seminar, Faculty of Mathematical Physics (MFF), Charles University, Prague, Czech Republic (December 2020).
- Oral presentation: “Electric field control of magnetism in 2D metallic or insulating heterostructures: theoretical XAS/XMCD calculations within a multiple-scattering framework“, invited seminar, Institute of Solid State Physics (ISSP) Tokyo, Japan (January 2020).
- Oral presentation: “Practical usage of Green’s functions in the computational study of real materials with disorder“, graduate school guest lecture, University of Chiba, Chiba, Japan (January 2020).
- Oral presentation: “Using KKR Green’s function(s) for the ab-initio study of real materials: Examples from disorder, magnetism and out-of-equilibrium spectroscopy“, invited seminar, Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic (August 2019).
- Oral presentation: “First principles studies of XAS/XMCD experiments in 2D heterostructures under steady-state non-equilibrium conditions“, DPG Spring meeting, Universität Regensburg, Germany (March 2019).
- Oral presentation: “Using KKR Green’s function(s) for the ab-initio study of real materials: Examples from disorder, magnetism and out-of-equilibrium spectroscopy“, invited seminar, Asian Pacific Center for Theoretical Physics, Pohang, South Korea (December 2018).
- Oral presentation: “X-ray absorption and magnetic dichroism under finite electric field within a NEGF-KKR framework“, DPG Spring meeting, Technical Universität Berlin, Germany (March 2018).
- Oral presentation: “Experimenting with effective medium developments for problems of disorder: Alternative averaging proposals in direct space“, DPG Spring meeting, Technical Universität Berlin, Germany (March 2018).
- Oral presentation: “X-ray absorption and magnetic dichroism under finite electric field within a NEGF-KKR framework“, EUSpec final whole-action meeting, Faculdade de Ciências e Tecnologia, Lisbon, Portugal (February 2018).
- Oral presentation: “Selected aspects of NLCPA: ongoing developments for adiabatic spin waves“, Ab-initio correlated methods in spectroscopy workshop, Czech Academy of Science, Prague, Czech Republic (February 2017).
- Oral presentation: “First-principles calculations in magnetic and disordered compounds“, National Institute for Material Science (NIMS), Tsukuba, Japan (February 2016).
- Oral presentation: “Constraints and choices in approximated Green's function construction for real materials“, Centre de Physique Théorique (CPHT), Ecole Polytechnique, Palaiseau/Paris, France (November 2015).

- Oral presentation: “First principles calculations in magnetic and disordered compounds: recovery of finite lifetime effects in a Green's function approximation framework”, Institut Néel, Grenoble, France (November 2015).
- Oral presentation: international workshop: “Atomic-Scale Challenges in Advanced Materials VIII”, University Centre for Materials and Surfaces, University of Turku, Finland (June 2015).
- Oral presentation: Deutschen Physikalischen Gesellschaft “Spring Meeting 2014”, Dresden Technical University, Dresden, Germany (March 2014).
- Oral presentation: “FP-LMTO+DMFT Workshop”, Uppsala Universitet / Aalto University / CECAM, CSC — IT National Center for Science Ltd., Espoo, Helsinki, Finland (August 2013).
- Oral presentation: international workshop: “Atomic-Scale Challenges in Advanced Materials VI”, University Centre for Materials and Surfaces, University of Turku, Finland (August 2013).
- Oral presentation: American Physical Society (APS) Meeting, Baltimore Convention Center, Baltimore (MD), USA (March 2013).
- Oral presentation: “International Symposium and Workshop on Correlated Electrons and Materials Properties of Compounds and Alloys”, Porto Heli, Greece (July 2012).
- Oral presentation: “Psi-k workshop on KKR and related Green's function methods”, Halle, Germany (July 2011).
- Oral presentation: “Advanced School on High Performance and Grid Computing”, Trieste, Italy (April 2011).
- Oral presentation: Institute of Physics (IoP) national conference: “Condensed Matter and Materials Physics”, University of Warwick, United Kingdom (December 2009).

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- Poster presentation: 7th ‘Electronic & Spin Dynamics’ workshop, Cergy-Paris Université, Paris, France (November 2024).
 - Poster presentation: 13th Joint European Magnetic Symposia (JEMS), University of Madrid, Madrid, Spain (September 2023).
 - Poster presentation: 21st International Workshop on “Computational Physics and Materials Science: Total Energy and Force Methods”, International Centre for Theoretical Physics “Abdus Salam” (ICTP), Trieste, Italy (January 2023).
 - Poster presentation: 5th international workshop: “Green's function methods: the next generation”, CECAM / University Paul Sabatier, Toulouse, France (November 2022).
 - Poster presentation: SPICE/Johannes Gutenberg Universität (Mainz) workshop: “Orbitronics: from Topological Matter to next Level Electronics”, Ingelheim, Germany (July 2022).
 - Poster presentation: 757th WE-Heraeus Seminar “Non-linear magnetism”, Bad Honnef, Germany (January 2022).
 - Poster presentation: 4th international workshop: “Green's function method: the next generation” CECAM HQ/EPFL, Lausanne, Switzerland (May 2019).

- Poster presentation: 19th International workshop: “Computational physics and materials science: "Total energy and force methods"”, International Centre for Theoretical Physics “Abdus Salam” (ICTP), Trieste, Italy (January 2019).
- Poster presentation: international workshop: “Progresses in Progresses in NonEquilibrium Green's Functions VII”, Frascati National Labs/INFN, Frascati, Italy (August 2018).
- Poster presentation: “MSNano Workshop”, University of Rennes 1, France (June 2016).
- Poster presentation: “Magnetic solotronics and Dirac materials”, Lake Como School of Advanced Studies, Como, Italy (April 2015).
- Poster presentation: 2nd international workshop: “Green's function method: the next generation” CECAM HQ/EPFL, Lausanne, Switzerland (May 2015).
- Poster presentation: “Waves and Disorder” GDR MésoImage / European Laboratory for Nonlinear Spectroscopy / University of Fribourg / CNRS summer school, Cargese, France (June 2014).
- Poster presentation: international symposium: “Superconductivity, magnetism, correlation”, Psi-k network / University of Bristol, United Kingdom (July 2014).
- Poster presentation: 17th international workshop: “Computational physics and materials science: "Total energy and force methods"”, CECAM HQ/EPFL, Lausanne, Switzerland (January 2014).
- Poster presentation: international symposium “Recent electronic-structure theories and related experiments”, Max Planck Institute for Solid State Research, Stuttgart, Germany (June 2013).
- Poster presentation: 1st international workshop: “Green's function methods: the next generation”, CECAM / University Paul Sabatier, Toulouse, France (June 2013).
- Poster presentation: 16th international workshop: “Computational physics and materials science: "Total energy and force methods"”, International Centre for Theoretical Physics “Abdus Salam” (ICTP), Trieste, Italy (January 2013).
- Poster presentation: “Computational Condensed Matter Physics and Materials Science from First Principles”, CECAM workshop, Barcelona, Spain (January 2012).
- Poster presentation: “75th Annual Meeting of the DPG and DPG Spring Meeting”, Dresden, Germany (March 2011).
- Poster presentation: 15th international workshop: “Computational physics and materials science: "Total energy and force methods"”, International Centre for Theoretical Physics “Abdus Salam” (ICTP), Trieste, Italy (January 2011).
- Poster presentation: “ Ψ_k Conference 2010”, Psi-k network, Free University, Berlin, Germany (September 2010).
- Poster presentation: “Theory, Modelling and Computational Methods for Semiconductors” workshop, Institute of Physics (IoP), York, United Kingdom (January 2010).
- Poster presentation: “Computer simulation of oxides: Dopants, defects and surfaces” CECAM / Ψ_k workshop, Tyndall National Institute / Trinity College, Dublin, Ireland (September 2009).
- Poster presentation: Hands-on course and workshop “KKR and Spectroscopy”, Ludwig-Maximilians-Universität, München, Germany (June 2009).

- Poster presentation: “KKR: Methodology and Applications” workshop, Research Institute for Solid State Physics and Optics, Hungarian Academy of Sciences, Budapest, Hungary (June 2009).
- Poster presentation: “Physics and Chemistry of Magnetic Materials” summer school, University of Bialystok, Poland (July 2007).

4. Research grants & fellowships

- Czech Science Foundation (GA CR) grant 23-04746S “Theory of magnetic systems in electric and electromagnetic fields”, PI: Ilja Turek (Institute of Physics of Materials, Czech Academy of Science, Brno), Ondrej Sipr (Institute of Physics, Czech Academy of Science, Prague) and Karel Carva (Charles University, Prague, period: 2023-2025. Replacement co-PI role, since January 2024);
- German Academic Exchange Service / Deutscher Akademischer Austausch Dienst (DAAD) fellowship for a research period hosted at the Max-Planck Institute of Microstructure Physics, Halle, Germany (2023);
- IT4I grants for scientific computing projects on the Czech National Supercomputing Centrum / Technical University of Ostrava: OPEN-25-38 (PI), OPEN-24-35 (PI), OPEN-23-28 (co-PI), OPEN-22-40 (PI), OPEN-22-42 (PI), OPEN-20-12 (co-PI), OPEN-19-45 (PI) (period: 2020-2023);
- Nano-Initiative Munich (NIM) grant (research mentor) for hosting foreign Master student for local research project within the 11th “international Summer Research Program at the Ludwig-Maximilians University of Munich, Germany (2018);
- E-Cost EU-SPEC short-term scientific mission (STSM) grant for research visit for scientific code development at the University of Rennes, France (February 2018);
- Grant Holder Scientific Representative (GH SR) for European Cooperation in Science and Technology (COST) 2014-2018 Action MP1306: “Modern Tools for Spectroscopy on Advanced Materials“ (<http://www.euspec.org>), from 18th May 2017 until grant conclusion;
- German Academic Exchange Service / Deutscher Akademischer Austausch Dienst (DAAD) scholarship for higher education and PhD research hosted at the Max-Planck Institute of Microstructure Physics, Halle, Germany (2011);
- Warwick Postgraduate Research Fellowship for PhD studies at University of Warwick, United Kingdom (period: 2008-2010);
- Erasmus scholarship for Master studies at the University of Copenhagen / Niels Bohr Institute, Denmark (2006);
- Scholarship from the “Conorzio per l'incremento degli studi di Fisica“ for Bachelor studies at the University of Trieste, Italy (1999).