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Current Position

July 2015 – today:	Research Assistant Professor at the Department of Physics and Astronomy, University of Utah, UT

Work Experience

May 2012 – June 2015:	Postdoc at the Department of Physics and Astronomy, University of Utah, UT
April 2011 – April 2012:	Postdoc at the Department of Electrical Engineering, Princeton University, NJ
April 2009 – March 2011:	Visiting Postdoc at the Department of Electrical Engineering, Princeton University, NJ (*Erwin Schödinger Scholarship* of the *FWF*, Austria).
July 2007 – March 2009:	Postdoc at the Institute of Semiconductor and Solid State Physics, Johannes Kepler University Linz, Austria.

Education

May 2002 – July 2007:	Dissertation (PhD) thesis: '*Spin-Orbit Interaction of Electrons Confined in Low Dimensional Silicon-Germanium Structures*' at the Institute of Semiconductor and Solid State Physics, Johannes Kepler University Linz, Austria. Supervisor: Prof. Dr. Wolfgang Jantsch.
March 2000 – April 2002:	Diploma (master) thesis: '*Structure Investigation of Xe adsorbed on Pd(111)*' at the Institute of Experimental Physics, Department Atomic Physics and Surface Science, Johannes Kepler University Linz, Austria. Supervisor: Prof. Dr. Peter Zeppenfeld.
October 1994 – April 2002:	Study of Technical Physics at the Johannes Kepler University Linz, Austria.
September 1986 – June 1994:	Secondary School: BRG Kirchdorf an der Krems, Austria.
September 1982 – June 1986:	Primary School: VS Linz/Auhof, Austria.

Awards and Scholarships

February 2017:	EPR Technology Transfer Experiences (ETTEs) Award, Shared EPR Network.
May 2014:	Outstanding Postdoc Award, Department of Physics, University of Utah,
April 2009 – March 2011:	Erwin Schrödinger Fellowship by the Austrian Science Fund (FWF) (Vienna, Austria)

Research Statement

My research is focused on electron paramagnetic resonance (EPR) and related techniques in semiconductor materials. A detailed knowledge of the magnetic properties – for example, spin relaxation times – of various material systems is crucial for any quantum information technology that utilizes electron spin as logic building block and provides basic insight into novel semiconductor materials. Conventional EPR techniques are versatile, easy to use, and readily available, but certain experiments require alternative instrumentation and measurement techniques.

Electrically and optically detected magnetic resonance measurements on organic light emitting diodes

Charge carrier (electrons and holes) pairs in thin-film organic light emitting diodes (OLEDs) consisting of active layers of conjugated polymers with weak spin-orbit coupling occur either in singlet or in triplet configuration. Transitions between both configurations are excited with resonant pulsed microwave irradiation in a magnetic resonance experiment. The resulting changes in population are detected as a change in device current (electrically detected magnetic resonance, EDMR) or as a change in light intensity from charge carrier recombination (optically detected magnetic resonance).
Hydrogen atoms are abundantly available in organic materials, and hyperfine interactions between charge carrier spins and its surrounding hydrogen nuclear spins have a strong influence on the spin-dependent processes. Nuclear spins are manipulated either directly with radiofrequency pulses in an electron-nuclear double resonance (ENDOR) experiment, or indirectly through manipulation of the charge carrier spins in an electron-spin-echo envelope modulation (ESEEM) scheme. Nuclear magnetic resonance is observed through changes in the EDMR response. Direct control of the device current by manipulation of nuclear spins (with a Zeeman level splitting on the order of 100 neV at room temperature) therefore constitutes an efficient switching mechanism that also determines device efficiency. These experiments allow for a determination of the hyperfine coupling strength in conjugated polymers.
In a double resonance (ELDOR) experiment involving different microwave frequencies two charge carrier species are excited separately, and information on the localization of the charge carrier pairs is obtained through the distance dependence of their dipolar interaction. This information can otherwise only be determined indirectly.
The spin-orbit interaction in organic systems that consist of mainly light elements is relatively weak but nonzero, and its influence on the magnetic resonance line width becomes stronger as the excitation frequency (the resonance field) increases. At low frequencies (low fields), the line width is completely governed by hyperfine fields from surrounding hydrogen nuclei. At typical EPR frequencies (10 GHz) both effects play a role, but no resonance splitting is resolved. It is necessary to conduct EDMR experiments at high frequencies (in the millimeter wave range) in order to reliably

obtain quantitative information on the role of spin-orbit coupling on magnetic resonance. Experiments at intermediate frequencies (typically below 10 GHz) will yield details of the transition regime – between the low field range that is dominated by hyperfine fields and the high field range that is dominated by spin-orbit coupling.

Confined electrons in low dimensional semiconductor structures

The spin properties, in particular spin relaxation, g-factors, line widths, and the anisotropies of these quantities of conduction electrons in semiconductors depend strongly on the level of confinement. For example, this is observed in silicon-germanium structures where both spin relaxation time and spin decoherence times depend strongly on whether electrons are confined in a two-dimensional quantum well or in zero-dimensional quantum dots. Spin relaxation mechanisms that originate from spin-orbit coupling are strongly suppressed in a fully confined system, and the spin relaxation times in quantum dots therefore are substantially longer. A detailed knowledge of the mechanisms that govern spin relaxation is particularly important for possible quantum computation application, where long spin lifetimes are important.

Magnetic Resonance Instrumentation and Methods

I have a strong interest in the development and implementation of novel experimental techniques that facilitate and improve certain experiments. In particular, I have successfully used the techniques stated below, and the experience gained will be useful for my future research activity.

- Design and implementation of planar microresonator structures. These are fabricated either on low-loss printed circuit board substrates or superconducting films and are used instead of conventional waveguide resonators in particular for fast spin manipulation with low microwave power and detection of spin resonance with high sensitivity from small samples is required. This is in particular important for quantum computing applications where microwave heating must be avoided. Another application for these non-conventional resonators is to facilitate magnetic resonance experiments at various microwave frequencies that are not supported by traditional hardware, in particular in combination with electrical detection. This is used, for example, to distinguish between contributions of hyperfine interactions and spin-orbit couplings to the EPR line width in OLEDs.
- Implementation and utilization of shaped microwave pulses for pulsed magnetic resonance experiments. Most conventional EPR spectrometers only support simple rectangular pulse envelopes. While this is sufficient for many applications, shaped microwave pulses offer substantial advantages in certain situations, in particular when large non-homogeneities in the static or microwave magnetic field exists across the sample volume. Composite or adiabatic pulses can overcome these problems and have been utilized in nuclear magnetic resonance experiments in the past. The implementation of such shaped pulses in EPR experiments is technically demanding and has been achieved only recently using high-end arbitrary waveform generators. This technique is particularly useful in combination with planar resonators with inhomogeneous microwave fields. Other application for shaped pulses is resonator ring-down suppression that reduces the spectrometer dead-time after high-power

microwave pulses, and utilization of multiple microwave frequencies for spin excitation and detection.

- Implementation of pulse sequences and phase cycles for longitudinal spin echo detection. In cases where the magnetic resonance signal is detected by a change of device conductivity or by optical emission rather than inductively, an echo signal is obtained by projection of the spins onto their Eigenstates along the direction of the magnetic field. Experimentally, this is implemented by appending one additional projection pulse followed by boxcar integration of the detected signal at the end of the pulse sequence. I have used this technique to successfully implement electrically detection of several established pulse sequences, such as ESEEM and ENDOR. However, the technique itself is not limited to these cases and can be used for various other pulses sequences. One possible application is a double resonance measurement in order to resolve dipolar couplings between charge carriers.

Publication List

- Kavand M, Zhang C, Sun D, Malissa H, Vardeny ZV, Boehme C. Driving field amplitude gauged quantitative inverse spin Hall effect detection. Physical Review B. 2017;95(16):161406(R). Published, 04/14/2017. https://journals.aps.org/prb/abstract/10.1103/PhysRevB.95.161406.
- Boehme C, Malissa H. Electrically Detected Magnetic Resonance Spectroscopy. eMagRes. 2017;6(1):83-100. Published, 03/19/2017. DOI: 10.1002/9780470034590.emrstm1525.
- Miller R, van Schooten KJ, Malissa H, Joshi G, Jamali S, Lupton JM, Boehme C. Morphology effects on spin-dependent transport and recombination in polyfluorene thin films. Physical Review B. 2016;94(21):214202. Published, 12/05/2016. DOI: 10.1103/PhysRevB.94.214202.
- Joshi G, Miller R, Ogden L, Kavand M, Jamali S, Ambal K, Venkatesh S, Schurig D, Malissa H, Lupton JM, Boehme C. Separating hyperfine from spin-orbit interactions in organic semiconductors by multi-octave magnetic resonance using coplanar waveguide microresonators. Applied Physics Letters. 2016;109(10):103303. Published, 09/07/2016. DOI: 10.1063/1.4960158.
- Kavand M, Baird D, van Schooten K, Malissa H, Lupton JM, Boehme, C. Discrimination between spin-dependent charge transport and spin dependent recombination in π-conjugated polymers by correlated current and electroluminescence-detected magnetic resonance. Physical Review B. 2016;94(7):075209. Published, 08/31/2016. DOI: 10.1103/PhysRevB.94.075209.
- Sun D, Zhang C, Kavand M, van Schooten KJ, Malissa H, Groesbeck M, McLaughlin R, Boehme C, Vardeny ZV. Spintronics of Organometal Trihalide Perovskites. arXiv:1608.00993 [cond-mat.mtrl-sci]. Submitted, 08/02/2016.
- Sun D, van Schooten KJ, Kavand M, Malissa H, Zhang C, Groesbeck M, Boehme C, Vardeny ZV. Inverse spin Hall effect from pulsed spin current in organic semiconductors with tunable spin-orbit coupling. Nature Materials. 2016;15(8):863-869. Published, 04/18/2016. DOI: 10.1038/nmat4618.
- Waters DP, Joshi G, Kavand M, Limes ME, Malissa H, Burn PL, Lupton C, Boehme C. The spin-Dicke effect in OLED magnetoresistance. Nature Physics. 2015;11(11):910-914. DOI: 10.1038/nphys3453.

- Malissa H, Kavand M, Waters DP, van Schooten KJ, Burn PL, Vardeny ZV, Saam B, Lupton JM, Boehme C. Room-temperature coupling between electrical current and nuclear spins in OLEDs. Science. 2014;345(6203):1487-1490. DOI: 10.1126/science.1255624.
- Sigillito AJ, Malissa H, Tyryshkin AM, Riemann H, Abrosimov NV, Becker P, Pohl HJ, Thewalt MLW, Itoh KM, Morton JJL, Houck AA, Schuster DI, Lyon SA. Fast, low-power manipulation of spin ensembles in superconducting microresonators. Applied Physics Letters. 2014;104(22):222407. DOI: 10.1063/1.4881613.
- Malissa H, Schuster DI, Tyryshkin AM, Houck AA, Lyon SA. Superconducting coplanar waveguide resonators for low temperature pulsed electron spin resonance spectroscopy. Review of Scientific Instruments. 2013;84(2):025116. DOI: 10.1063/1.4792205.
- Havlicek M, Chernov A, Jantsch W, Wilamowski Z, Yanagi K, Kataura H, Rümmeli MH, Malissa H, Kuzmany H. Magnetic phase transition for defect induced electron spins from fully metal-semiconductor separated SWCNTs. Physica Status Solidi B. 2012;249(12):2562-2567. DOI: 10.1002/pssb.201200426.
- Havlicek M, Jantsch W, Wilamowski Z, Yanagi K, Kataura H, Rümmeli MH, Malissa H, Tyryshkin A, Lyon S, Chernov A, Kuzmany H. Indirect exchange interaction in fully metal-semiconductor separated single-walled carbon nanotubes revealed by electron spin resonance. Physical Review B. 2012;86(4):045402. DOI: 10.1103/PhysRevB.86.045402.
- Hochreiner A, Malissa H, Wilamowski Z, Jantsch W. Two-dimensional magneto-plasmons in Si/SiGe quantum wells. AIP Conference Proceedings. 2010;1199:187-188. DOI:10.1063/1.3295360.
- Malissa H, Wilamowski Z, Jantsch W. Coupled plasmon-cyclotron resonance in ultra-high mobility bulk silicon. AIP Conference Proceedings. 2010;1199:63-64. DOI:10.1063/1.3295555.
- Jantsch W, Hochreiner A, Malissa H, Wilamowski Z. Excitation of conduction electron spin resonance in Si quantum wells. International Journal of Modern Physics B. 2009;23(12n13):2898-2904. DOI: 10.1142/S0217979209062517.
- Wilamowski Z, Malissa H, Jantsch W. Tuning of spin resonance by an electric current in a Si quantum well. Materials Science-Poland. 2008;26(4):863-869. Link.
- Wilamowski Z, Malissa H, Glazov M, Jantsch W. Limitations in the tunability of the spin resonance of 2D electrons in Si by an electric current. Acta Physica Polonica A. 2007;112(2):375-379. DOI: 10.12693/APhysPolA.112.375.
- Wilamowski Z, Malissa H, Schäffler F, Jantsch W. g-factor tuning and manipulation of spins by an electric current. Physical Review Letters. 2007;98(18):187203. DOI: 10.1103/PhysRevLett.98.187203.
- Malissa H, Jantsch W, Chen G, Lichtenberger H, Fromherz T, Schäffler F, Bauer G, Tyryshkin A, Lyon S, Wilamowski Z. Spin relaxation in SiGe islands. AIP Conference Proceedings. 2007;893:1317. DOI: 10.1063/1.2730387.
- Malissa H, Jantsch W, Schäffler F, Wilamowski Z. Current induced g-factor shift in modulation doped Si quantum wells. MRS Proceedings. 2006;984:0984-MM11-02. DOI: 10.1557/PROC-984-0984-MM11-02.

- Malissa H, Jantsch W, Chen G, Lichtenberger H, Fromherz T, Schäffler F, Bauer G, Tyryshkin A, Lyon S, Wilamowski Z. Spin relaxation in SiGe islands. MRS Proceedings. 2006;958:0958-L03-04. DOI: 10.1557/PROC-0958-L03-04.
- Malissa H, Gruber D, Pachinger D, Schäffler F, Jantsch W, Wilamowski Z. Design and fabrication of a SiGe double quantum well structure for g-factor tuning. Superlattices and Microstructures. 2006;39(5):414-420. DOI: 10.1016/j.spmi.2005.09.001.
- Gruber D, Pachinger D, Malissa H, Mühlberger M, Lichtenberger H, Jantsch W, Schäffler F. g-Factor tuning of 2D electrons in double-gated Si/SiGe quantum wells. Physica E: Low-dimensional Systems and Nanostructures. 2006;32(1-2):254-257. DOI: 10.1016/j.physe.2005.12.095.
- Malissa H, Jantsch W, Chen G, Gruber D, Lichtenberger H, Schäffler F, Wilamowski Z, Tyryshkin A, Lyon S. Investigation of the spin properties of electrons in zero-dimensional SiGe structures by electron paramagnetic resonance. Materials Science and Engineering: B. 2006;126(2-3):172-175. DOI: 10.1016/j.mseb.2005.09.052.
- Przybylińska H, Bonanni A, Wolos A, Kiecana M, Sawicki M, Dietl T, Malissa H, Simbrunner C, Wegscheider M, Sitter H, Rumpf K, Granitzer P, Krenn H, Jantsch W. Magnetic properties of a new spintronic material-GaN:Fe. Materials Science and Engineering: B. 2006;126(2-3):222-225. DOI: 10.1016/j.mseb.2005.09.015.
- Malissa H, Wilamowski Z, Jantsch W. Cyclotron resonance revisited: the effect of carrier heating. AIP Conference Proceedings. 2005;772:1218. DOI: 10.1063/1.1994551.
- Jantsch W, Malissa H, Wilamowski Z, Lichtenberger H, Chen G, Schäffler F, Bauer G. Spin properties of electrons in low-dimensional SiGe structures. Journal of Superconductivity. 2005;18(2):145-149. DOI: 10.1007/s10948-005-3350-2.
- Malissa H, Jantsch W, Mühlberger M, Schäffler F, Wilamowski Z, Draxler M, Bauer P. Anisotropy of g-factor and electron spin resonance linewidth in modulation doped SiGe quantum wells. Applied Physics Letters. 2004;85(10):1739-1741. DOI: 10.1063/1.1788881.
- Malissa H, Jantsch W, Mühlberger M, Schäffler F, Wilamowski Z, Draxler M, Bauer P. Bychkov-Rashba effect and g-factor tuning in modulation doped SiGe quantum wells. Acta Physica Polonica A. 2004;105(6):585-590. DOI: 10.12693/APhysPolA.105.585.
- Zhu JF, Ellmer H, Malissa H, Brandstetter T, Semrad D, Zeppenfeld P. Low-temperature phases of Xe on Pd(111). Physical Review B. 2003;68(4):045406. DOI: 10.1103/PhysRevB.68.045406.
- Wilamowski Z, Jantsch W, Malissa H, Rössler U. Evidence and evaluation of the Bychkov-Rashba effect in SiGe/Si/SiGe quantum wells. Physical Review B. 2002;66(19):195315. DOI: 10.1103/PhysRevB.66.195315.

Seminar and Invited Presentations

- Multi-frequency electrically detected magnetic resonance spectroscopy from the very-low to very-high magnetic field regime. Condensed Matter Seminar. Ames Laboratory, Iowa State University. Ames, IA. April 2017.
- Spin-dependent electronic processes in organic semiconductors. APS March Meeting 2017. New Orleans, LA. March 2017.

- Electrical Detection of Electron Spin Motion. Physics Undergraduate Seminar. Department of Physics and Astronomy, University of Utah. March 2017.
- Estimation of Spin Diffusion Length in Organic Semiconductors by Means of pulsed Inverse Spin-Hall Effect. Seminar. University Regensburg (Germany). February 2017.
- Determining the crucial parameters for magnetoresistance effects in organic semiconductors using multi-frequency electrically detected magnetic resonance spectroscopy in the very-low to very-high magnetic field range. PPHMF-8. NHMFL, Tallahassee, FL. January 2016.
- Exploring the influence of nuclear spins on electronic properties of organic semiconductor materials. Sonderkolloquium. Johannes Kepler University Linz (Austria). June 2015.
- Magnetic resonance at unconventional fields and the influence of nuclear spins on electronic properties of organic semiconductors. SFB Seminar. University Regensburg (Germany). June 2015.
- Electrical Detection of Electron Spin Motion. Physics Undergraduate Seminar. Department of Physics and Astronomy, University of Utah. April 2015.
- Magnetoresistance of organic semiconductors and nuclear spins – how neV energy scales control meV energy transitions. Condensed Matter Seminar. Department of Physics and Astronomy, University of Utah. August 2014.
- Electrically-detected nuclear spin motion in organic thin-film semiconductors. University of Utah MRSEC Colloquium. May 2013.
- Electron spin resonance measurements on silicon structures. Department of Physics and Astronomy. University of Utah. March 2012.
- Electron spin resonance measurements on silicon structures. Department of Physics, City College of New York. March 2012.
- ESR investigation of silicon quantum dot ensembles'. Physikkolloquium. Johannes Kepler University Linz (Austria). October 2011.

Conference Contributions

- H. Malissa, R. Miller, D. L. Baird, S. Jamali, G. Joshi, P. Klemm, S. Bange, M. Bursch, S. Grimme, J. van Tol, J. M. Lupton, C. Boehme
  'Spin-orbit coupling in conjugated polymers'
  Spinos VI – International Meeting on Spins in Organic Semiconductors, October 2016, Chicago, IL (oral presentation)
- H. Malissa, R. Miller, D. L. Baird, S. Jamali, G. Joshi, P. Klemm, S. Bange, M. Bursch, S. Grimme, J. van Tol, J. M. Lupton, C. Boehme
  'Spin-orbit coupling in conjugated polymers'
  58th Annual Rocky Mountain Conference on Magnetic Resonance, July 2016, Breckenridge, CO (oral presentation)
- H. Malissa, D. P. Waters, G. Joshi, M. Kavand, M. E. Limes, P. L. Burn, J. M. Lupton, and C. Boehme
  'Magnetoresistance detected spin collectivity in organic light emitting diodes'
  APS March Meeting 2016, March 2016, Baltimore, MD (oral presentation)
- H. Malissa, G. Joshi, R. Miller III, S. Jamali, D. Baird, M. Kavand, J. van Tol, J. M. Lupton, and C. Boehme
  'Differentiating between hyperfine and spin-orbit coupling in magnetic resonance spectral broadening of organic semiconductors'

57th Annual Rocky Mountain Conference on Magnetic Resonance
July 2015, Snowbird, UT (oral presentation)

- H. Malissa, M. Kavand, D. P. Waters, K. J. van Schooten, P. L. Burn, Z. V. Vardeny, B. Saam, J. M. Lupton, and C. Boehme
  'Investigation of hyperfine couplings in organic semiconductors with electrically detected ESEEM and ENDOR experiments'
  56th Annual Rocky Mountain Conference on Magnetic Resonance
  July 2014, Copper Mountain, CO (oral presentation)
- H. Malissa, M. Kavand, D. P. Waters, J. M. Lupton, Z. V. Vardeny, B. Saam, and C. Boehme
  'Electrical detection of nuclear spins in organic light-emitting diodes'
  APS March Meeting 2014
  March 2014, Denver, CO (oral presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, J. Morton, and S. Lyon
  'Superconducting micro-resonators for low-temperature pulsed ESR measurements'
  54th Annual Rocky Mountain Conference on Analytical Chemistry
  July 2012, Copper Mountain, CO (oral presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, and S. Lyon
  'Planar superconducting micro-resonators for pulsed ESR experiments'
  APS March Meeting 2012
  February 2012, Boston, MA (oral presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, and S. Lyon
  'Planar superconducting micro-resonators for pulsed ESR experiments'
  2012 International Workshop On Silicon Quantum Electronics
  February 2012, Sydney, Australia (oral presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, and S. Lyon
  'Planar superconducting micro resonators for pulsed ESR experiments'
  PCCM Symposium: Quantum Control of Solid State Systems
  November 2011, Princeton, NJ (oral presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, and S. Lyon
  'Design and fabrication of planar superconducting micro resonators for pulsed ESR experiments'
  International Workshop on Silicon Quantum Electronics
  August 2011, Denver, CO (poster presentation)
- H. Malissa, D. Schuster, A. Tyryshkin, A. Houck, and S. Lyon
  'Design and fabrication of planar superconducting micro resonators for pulsed ESR experiments'
  ARO/NSA Quantum Computing & Quantum Algorithms Program Review meeting
  August 2011, Denver, CO (poster presentation)
- H. Malissa, Jianhua He, S. Shankar, Tzu-Ming Lu, Hung-Ming Chen, Chieh-Hsiung Kuan, A. M. Tyryshkin, and S. A. Lyon
  'Spin Coherence and Relaxation of Disorder-Confined Electrons at Interfaces in Silicon'
  4th Annual Workshop on Silicon Science & Technology for Quantum Computing
  August 2010, Albuquerque, NM (oral presentation)

- H. Malissa, W. Jantsch, G. Chen, T. Fromherz, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, and Z. Wilamowski
  'Spin relaxation in SiGe islands'
  APS March Meeting 2010
  March 2010, Portland, OR (oral presentation)
- H. Malissa, Z. Wilamowski, F. Schäffler, and W. Jantsch
  'Current induced g-factor shift in modulation doped silicon quantum wells'
  Spin Phenomena in Reduced Dimensions
  September 2008, Regensburg, Germany (poster presentation)
- H. Malissa, Z. Wilamowski, F. Schäffler, and W. Jantsch
  'Current induced g-factor shift in modulation doped silicon quantum wells'
  58th ÖPG annual meeting
  September 2008, Leoben, Austria (poster presentation)
- H. Malissa, Z. Wilamowski, and W. Jantsch
  'plasmon-cyclotron resonance in ultra-high mobility bulk silicon'
  29th International Conference on the Physics of Semiconductors
  July 2008, Rio de Janeiro, Brazil (poster presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, T. Fromherz, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, Z. Wilamowski
  'Spin Relaxation in SiGe Islands'
  SPS Workshop
  May 2008, Montpellier, France (oral presentation)
- H. Malissa, W. Jantsch, D. Gruber, M. Mühlberger, D. Pachinger, G. Chen, G. Bauer, F. Schäffler, A. Tyryshkin, S. Lyon, and Z. Wilamowski
  'Spin-orbit interaction of confined electrons in SiGe structures'
  Nanoforum 2007
  May 2007, Linz, Austria (oral presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, T. Fromherz, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, and Z. Wilamowski
  'Spin relaxation in SiGe quantum dots'
  MRS Fall Meeting 2006
  November 2006, Boston, MA (oral presentation)
- H. Malissa, W. Jantsch, F. Schäffler, and Z. Wilamowski
  'Current induced g-factor shift in modulation doped Si quantum wells'
  MRS Fall Meeting 2006
  November 2006, Boston, MA (oral presentation)
- H. Malissa, W. Jantsch, F. Schäffler, and Z. Wilamowski
  'g-factor tuning by an electric current in modulation-doped Si quantum wells'
  28th International Conference on the Physics of Semiconductors
  July 2006, Vienna, Austria (oral presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, T. Fromherz, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, and Z. Wilamowski
  'Spin relaxation in SiGe islands'
  28th International Conference on the Physics of Semiconductors
  July 2006, Vienna, Austria (poster presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, and Z. Wilamowski
  'EPR investigation of low-dimensional SiGe Structures'
  International workshop on electron spin resonance and related phenomena in

low dimensional structures
March 2006, Sanremo, Italy (poster presentation)

- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, F. Schäffler, G. Bauer, A. Tyryshkin, S. Lyon, and Z. Wilamowski
'EPR investigation of low-dimensional SiGe Structures'
14th International Winterschool on New Developments in Solid State Physics (Low-Dimensional Systems)
February 2006, Mauterndorf, Austria (poster presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, F. Schäffler, G. Bauer, Z. Wilamowski, A. Tyryshkin, and S. Lyon
'Fabrication and characterization of low dimensional SiGe structures'
The 3rd International School and Conference on Spintronics and Quantum Information Technology (Spintech 3)
August 2005, Awaji, Japan (poster presentation)
- H. Malissa, W. Jantsch, G. Chen, H. Lichtenberger, F. Schäffler, G. Bauer, Z. Wilamowski, A. Tyryshkin, and S. Lyon
'Fabrication and characterization of low dimensional SiGe structures'
XXXIV International School on the Physics of Semiconductor Compounds
June 2005, Jaszowiec, Poland (poster presentation)
- H. Malissa, W. Jantsch, G. Chen, D. Gruber, H. Lichtenberger, F. Schäffler, Z. Wilamowski, A. Tyryshkin, and S. Lyon
'Investigation of the spin properties of electrons in zero dimensional SiGe structures by electron paramagnetic resonance'
EMRS Spring Meeting 2005
May 2005, Strasbourg, France (oral presentation)
- H. Malissa
'Spin properties of low dimensional Si structures'
Nanoforum 2005
May 2005, Linz, Austria (oral presentation)
- H. Malissa, W. Jantsch, M. Mühlberger, D. Gruber, F. Schäffler, Z. Wilamowski, M. Draxler, and P. Bauer
'Spin relaxation and g-factor tuning in low dimensional SiGe structures'
54th ÖPG annual meeting
September 2004, Linz, Austria (oral presentation)
- H. Malissa, Z. Wilamowski, and W. Jantsch
'Cyclotron resonance in high mobility Si: the effect of carrier heating'
54th ÖPG annual meeting
September 2004, Linz, Austria (poster presentation)
- H. Malissa, W. Jantsch, M. Mühlberger, F. Schäffler, and Z. Wilamowski
'Bychkov-Rashba effect in low dimensional SiGe structures'
27th International Conference on the Physics of Semiconductors
July 2004, Flagstaff, AZ (oral presentation)
- H. Malissa, Z. Wilamowski, and W. Jantsch
'Cyclotron resonance revisited: the effect of carrier heating'
27th International Conference on the Physics of Semiconductors
July 2004, Flagstaff, AZ (poster presentation)
- H. Malissa, W. Jantsch, M. Mühlberger, F. Schäffler, Z. Wilamowski, M. Draxler, and P. Bauer
'Bychkov-Rashba effect and g-factor tuning in modulation doped SiGe

quantum wells'
XXXIII International School on the Physics of Semiconducting Compounds
May 2004, Jaszowiec,Poland (oral presentation)

- H. Malissa, W. Jantsch, Z. Wilamowski, M. Mühlberger, F. Schäffler, M. Draxler, and P. Bauer
'Spin-Orbit Interaction in SiGe Quantum Wells'
MRS Spring Meeting 2004
April 2004, San Francisco, CA (oral presentation)
- H. Malissa, W. Jantsch, M. Mühlberger, F. Schäffler, Z. Wilamowski, M. Draxler, and P. Bauer
'Anisotropy of g-factor and ESR linewidth in modulation doped SiGe quantum wells'
13th International Winterschool on New Developments in Solid State Physics (Low-Dimensional Systems)
February 2004, Mauterndorf, Austria (poster presentation)
- H. Malissa, W. Jantsch, M. Mühlberger, F. Schäffler, and Z. Wilamowski
'Anisotropy of g-Factor and ESR Line Width in Modulation Doped SiGe Quantum Wells'
The 2nd International Conference on Semiconductor Spintronics and Quantum Information Technology (Spintech 2)
August 2003, Bruges, Belgium (poster presentation)