SERGEY MIKHAILOV
Josef-Priller-Str. 32, D-86159, Augsburg, Germany
Office: +49 (821) 5983255, sergey.mikhailov@physik.uni-augsburg.de

PERSONAL DETAILS

Full name	Mikhailov, Sergey Anatolievich (family name) (first name) (father name)
Date and place of birth	24 December 1958, Volgograd, Russia
Citizenship	Russian
Current position	Staff researcher (Wissenschaftlicher Mitarbeiter), Principal Investigator of a DFG project
Office address	Institute of Physics, University of Augsburg, D-86135 Augsburg, Germany
Web-site	http://www.physik.uni-augsburg.de/∼mikhaise

EDUCATION

- **Ph.D. in physical and mathematical sciences** **May 1987**
  Institute of Radioengineering and Electronics, Russian Academy of Sciences, Moscow, Russia.
  Speciality: Physics of Semiconductors and Dielectrics.
  Dissertation: *Plasmons in inhomogeneous two-dimensional electron systems and Faraday rotation in the quantum Hall effect regime* (almost 300 citations of five relevant papers, Refs. [71]–[75] in the *List of Publications* below).

- **Diploma in physics (with honour)** **June 1982**
  Moscow Institute of Physics and Technology (State University), Moscow, Russia.

RESEARCH EXPERIENCE

- **University of Augsburg, Germany** **Dec 2006 – present**

  Staff researcher (Wissenschaftlicher Mitarbeiter), Institute of Physics (Chair Theory II).

  Principal Investigator of several externally funded research projects: European Union (2012 –), Deutsche Forschungsgemeinschaft (2009 – 2012), INTAS (European Union), Swedish Research Council

  Duties:

  – Teaching (5 h/week)
  – Research work on the *Theory of low-dimensional electron systems in semiconductors and semimetals (graphene)*
  – Supervision of students and post-docs.

- **Mid Sweden University, Sundsvall, Sweden** **Feb 2004 – Nov 2006**

  Staff researcher, Department of Information Technology and Media.

  Principal Investigator of several externally funded research projects: INTAS (European Union), Swedish Research Council, Swedish Foundation for International Cooperation in Research and Higher Education

Second Prize in the *Business plan competition Venture Cup Nord*, Sweden 2005.

Duties:

- Research work on the *Theory of quantum-Hall systems in semiconductors*
- Supervision of a post-doc.

- **University of Aizu, Aizu-Wakamatsu, Japan** **Dec 2005 – Jan 2006**

  Visiting researcher, Department of computer hardware.

  Senior Fellow of the Japan Society for the Promotion of Science.

  - Research work on the *Theory of quantum-Hall systems in semiconductors*
  - Supervision of a Ph.D. student.

- **Max-Planck Institute for Solid State Research, Stuttgart, Germany** **Apr 2002 – Jan 2004**

  Staff researcher, Department von Klitzing.

  Duties:

  - Research work on the *Theory of quantum-Hall systems*
  - Supervision of a Ph.D. student.

- **University of Augsburg, Germany** **Aug 2000 – Mar 2002**

  Staff researcher, Institute of Physics (Chair Theory II).

  Duties: Research work on the *Many-body theory of low-dimensional electron systems.*

- **University of Regensburg, Germany** **Sep 1999 – Jul 2000**

  Post-doc Fellow, Institute of Theoretical Physics.

  Duties:

  - Research work on the *Many-body theory of electron systems (quantum dots)*
  - Supervision of a student.

- **Max-Planck Institute for the Physics of Complex Systems, Dresden, Germany** **May 1997 – Aug 1999**

  Post-doc researcher, Department *Electronic correlations.*

  Duties: Research work on the *Theory of electrodynamic and many-body properties of low-dimensional electron systems.*

- **University of Regensburg, Germany** **Jun 1995 – Apr 1997**

  Post-doc researcher, Institute of Theoretical Physics.

  Fellow of the Alexander von Humboldt Foundation.

  Duties:

  - Research work on the *Theory of low-dimensional electron systems*
  - Supervision of a student.

- **Invited lectures** in seven Universities and Research laboratories of the ***USA and Canada*** **Sep 1996 – Oct 1996**

- **Institute of Radioengineering and Electronics** of the **Russian Academy of Sciences, Moscow, Russia** **Jan 1986 – May 1995**

  Junior researcher, Researcher, Senior researcher, Laboratory of Theoretical Problems of Microelectronics.

  Principal Investigator of several externally funded research projects (International Science Foundation, Russian Foundation for Basic Research).

  Participation in a **Collaborative research project** with the company ***Bell Northern Research, Canada*** (1993 – 1995).

  Duties: Research work on the *Theory of low-dimensional electron systems*.

- **Ludwig-Maximilians-University of Munich, Germany** **Nov 1993**

  Visiting researcher, Institute of Physics.

TEACHING EXPERIENCE

- **University of Augsburg, Germany** **Dec 2006 – present**

Mathematical concepts I and II; lectures	2 semesters
Electrodynamics of low-dimensional electron systems; lectures	1 semester
Physics of semiconductors; lectures	1 semester
Mathematical concepts I and II; exercises, preparing of exercises	3 semesters
Quantum mechanics; exercises	1 semester
Electrodynamics; exercises	1 semester
Theoretical physics for material scientists; exercises, occasionally lectures	1 semester
Seminar for students *Two-dimensional electron systems*	3 semesters

- **Moscow Institute of Physics and Technology, Russia** **1976 – 1978**
  Teaching assistant at the Distant Education School, physics, mathematics.

RESEARCH SUPERVISION/COSUPERVISION

- **University of Augsburg, Germany** **2007 – present**
  One post-doc, three students. Publications: [18, 20, 91, 95, 101].

- **Mid Sweden University, Sundsvall, Sweden** **2004 – 2006**
  One post-doc. Publications: Refs. [36] (25 citations), [32] (14 citations), [28, 109].

- **University of Aizu, Aizu-Wakamatsu, Japan** **Dec 2005 – Jan 2006**
  One Ph.D. student. Publication: [30].

- **Max-Planck Institute for Solid State Research, Stuttgart, Germany** **2003**
  One Ph.D. student. Publications: Refs. [41] (47 citations) and [40] (8 citations).

- **University of Regensburg, Germany** **1999 – 2000**
  One student. Publications: Refs. [47] (24 citations) and [48].

- **University of Regensburg, Germany** **1996 – 1997**
  One student. Publications: Refs. [57] (18 citations) and [56].

OTHER PROFESSIONAL EXPERIENCE

- **Referee in scientific journals** **1997 – present**
  Physical Review Letters, Europhysics Letters, Applied Physics Letters, Physical Review B, Physics Letters A, European Physical Journal B, Journal of Physics: Condensed Matter, Journal of Applied Physics, Semiconductor Science and Technology, Physica Status Solidi (b), Annalen der Physik and other

- **All-Union Institute of Scientific and Technical Information, Russian Academy of Sciences, Moscow, Russia** **1982 – 1993**
  Scientific editor (1991 – 1993), Scientific referee (1982 – 1991).

AWARDS, GRANTS, FELLOWSHIPS

- **Research grant** *Graphene on Silicon Free Electron Laser*, European Union, Consortium Exeter (UK), Augsburg (Germany), Zurich (Switzerland), Norway **2012 – 2015**
  Principal Investigator of the Augsburg group

- **Research grant** *Electrodynamic properties of graphene* (Eigene Stelle), Deutsche Forschungsgemeinschaft, 225 000 € **2009 – 2012**
  Principal Investigator

- **Research grant** *Quantum Hall systems in microwave fields*, Swedish Research Council, 2 250 000 SEK **2006 – 2010**
  Principal Investigator

- **Research grant** *Microwave photoresponse of two-dimensional electron systems: Interplay of collective and single-particle excitations*, INTAS, 137 000 € (Consortium Russia, Germany, Sweden) **2006 – 2009**
  Principal Investigator of the Swedish part

- **Senior Fellowship**, Japan Society for the Promotion of Science (JSPS) **2005 – 2006**

- **Nomination for a JSPS Senior Fellowship**, Swedish Governmental Agency for Innovation Systems (VINNOVA) **2005**

- **Research grant** *Theoretical and experimental studies of two-dimensional electron systems in microwave fields*, Swedish Foundation for International Cooperation in Research and Higher Education, 100 000 SEK (Consortium Sweden – Germany) **2005 – 2006**
  Principal Investigator of the Swedish part

- **Second Prize**, Business plan competition *Venture Cup Nord, Sweden* **2005**

- **Research Fellowship**, University of Regensburg, Germany **1999 – 2000**

- **Research Fellowship**, Alexander von Humboldt Foundation, Germany **1995 – 1997**

- **Research Grant**, International Science Foundation and Russian Foundation of Basic Research **1995**
  Principal Investigator

- **Research Grants**, International Science Foundation **1993 – 1994**
  Principal Investigator

- The work on the theoretical prediction and experimental discovery of the quantum Faraday effect has been recognized as **one of the best achievements** of the Academy of Sciences of the USSR in **1986**

- **Several awards for the best young researcher work**, Institute of Radioengineering and Electronics, Russian Academy of Sciences **1982 – 1986**

ORGANIZATION OF CONFERENCES

- International Symposium "Electrodynamics of Graphene: Theory, Experiment and Applications" within the Ninth International Conference on Computational Methods in Sciences and Engineering (ICCMSE 2011), Halkidiki, Greece, 02-07 October 2011

PUBLICATIONS, CITATIONS, PRESENTATIONS IN THE MEDIA

- **Publications** (full list see below; most papers can be downloaded from http://www.physik.uni-augsburg.de/∼mikhaise)
  - **3** patents/patent applications
  - **2** books (editor)
  - **7** contributions to books
  - **64** papers in refereed physical journals
  - **4** invited conference talks
  - about **70** contributions to academic conferences
  - more than **60** invited seminar talks in Universities and Research Laboratories in Germany, UK, France, Austria, Sweden, Finland, the Netherlands, Russia, Ukraine, USA, Canada, Japan and China

- **Overall number of citations: more than** ~ 1100

- **Hirsch index:** ~ 20

- **Presentations in the media**
  - **Dagbladet Sundsvall, Sweden** **April 2005**
    An article about my research work and the Second Prize in the Business plan competition Venture Cup Nord.
  - **Internet (nanotechweb.org)** **7 August 2007**
    An article *Graphene could bridge terahertz gap* about my work [26] on the non-linear electromagnetic response of graphene
    (http://nanotechweb.org/cws/article/tech/30778)

PROFESSIONAL MEMBERSHIPS

- **American Physical Society** **1998 – present**

- **American Association for the Advancement of Science** **1997 – 1998**

LANGUAGES

- English – good
- German – good
- Russian – mother tongue
- Swedish – elementary knowledge (reading, understanding)

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LIST OF PUBLICATIONS AND CITATION INFORMATION

CITATIONS

The citation information is taken from **ISI Web of Knowledge/Web of Science**, in the modus **Cited reference search** (the standard **Search** modus gives incomplete information).

The table below shows the list of the mostly cited papers (with the number of citations ≥ 10). The horisontal line marks the Hirsch boundary, corresponding to the ***Hirsch index*** $\sim$ ***21***.

No.	Ref.	Author(s)	Journal, year	Citations
1	[71]	Volkov, Mikhailov	Sov. Phys. JETP (1988)	143
2	[38]	Mikhailov	Phys. Rev. B (2004)	65
3	[53]	Mikhailov	Phys. Rev. B (1998)	60
4	[25]	Mikhailov et al	Phys. Rev. Lett. (2007)	57
5	[11]	Volkov, Mikhailov	Landau Level Spectroscopy (1991)	55
6	[41]	Kukushkin, Mikhailov et al	Phys. Rev. Lett. (2003)	54
7	[74]	Volkov, Mikhailov	JETP Lett. **42** (1985)	52
8	[39]	Kukushkin, Mikhailov et al	Phys. Rev. Lett. (2004)	52
9	[45]	Mikhailov	Phys. Rev. B (2002)	47
10	[72]	Volkov, Mikhailov et al	JETP Letters **44** (1986)	44
11	[73]	Volkov, Mikhailov et al	JETP Letters **43** (1986)	30
12	[23]	Mikhailov et al	J. Phys.: Cond. Matter (2008)	29
13	[75]	Volkov, Mikhailov	JETP Letters **41** (1985)	26
14	[36]	Mikhailov et al	Phys. Rev. B (2005)	26
15	[26]	Mikhailov	Europhys. Lett. (2007)	24
16	[47]	Kainz, Mikhailov et al	Phys. Rev. B (2002)	24
17	[17]	Hendry, ..., Mikhailov et al	Phys. Rev. Lett. (2010)	22
18	[42]	Mikhailov	Phys. Rev. B (2002)	21
19	[43]	Mikhailov et al	Phys. Rev. B (2002)	21
20	[35]	Kukushkin, Mikhailov et al	Appl. Phys. Lett. (2005)	20
21	[63]	Mikhailov et al	Phys. Rev. B (1995)	20
22	[69]	Mikhailov et al	J. Phys.: Cond. Matter (1992)	19
23	[61]	Mikhailov	Phys. Rev. B (1996)	19
24	[57]	Mayrock, Mikhailov et al	Phys. Rev. B (1997)	18
25	[20]	Hill, Mikhailov et al	Europhys. Lett. (2009)	16
26	[60]	Mikhailov	Phys. Rev. B (1996)	15
27	[32]	Mikhailov et al	Phys. Rev. B. (2006)	15
28	[68]	Mikhailov	JETP Letters (1993)	13
29	[8]	Mikhailov	Book on EMP, ch. 1 (2000)	11
30	[58]	Mikhailov et al	Appl. Phys. Lett. (1997)	10

LIST OF PUBLICATIONS

[A] Patents

[1] **S. A. Mikhailov**, *Graphene-based nanodevices for terahertz electronics*, European patent application (filed 07.12.2011)

[2] K. von Klitzing, **S. A. Mikhailov**, J. H. Smet and I. V. Kukushkin, *Detector for electromagnetic radiation and a method of detecting electromagnetic radiation*, United State Patent No.: US 6,987,484. Date of Patent: Jan. 17, 2006

[3] K. von Klitzing, **S. A. Mikhailov**, J. H. Smet and I. V. Kukushkin, *A detector for electromagnetic radiation and a method of detecting electromagnetic radiation*, European Patent No.: EP 1530241 (A2). Date of Patent: May 11, 2005

[B] Books

[4] *Physics and Applications of Graphene – Theory*, ISBN: 978-953-307-152-7, edited by **Sergey Mikhailov** (InTech, Rijeka, Croatia, 2011), 534 pages (available from: http://www.intechweb.org/books/show/title/physics-and-applications-of-graphene-theory).

[5] *Physics and Applications of Graphene – Experiments*, ISBN: 978-953-307-217-3, edited by **Sergey Mikhailov** (InTech, Rijeka, Croatia, 2011), 540 pages (available from: http://www.intechweb.org/books/show/title/physics-and-applications-of-graphene-experiments).

[C] Contributions to books

[6] **S. A. Mikhailov**, *Nonlinear electrodynamic and optical properties of graphene*, in: *"Advances in Innovative Materials and Applications"*, ISSN 1022-6680, edited by Maher Soueidan, Mohamad Roumié and Pierre Masri (Trans Tech Publications Ltd, Zurich, Switzerland, 2011), volume **324** of *Advanced Materials Research*, pp. 237-240.

[7] **S. A. Mikhailov**, *Frequency Mixing Effects in Graphene*, in: *Physics and Applications of Graphene – Theory*, ISBN: 978-953-307-152-7, edited by **Sergey Mikhailov** (InTech, Rijeka, Croatia, 2011); chapter 25, pp. 519 – 534 (available from: http://www.intechopen.com/articles/show/title/frequency-mixing-effects-in-graphene).

[8] **S. A. Mikhailov**, *Edge and Inter-Edge Magnetoplasmons in Two-Dimensional Electron Systems*, in: Edge Excitations of Low-Dimensional Charged Systems (Volume 236 in Horizons in World Physics), ed. by O. Kirichek, Nova Science Publishers, Inc., NY, ch. 1, pp. 1 - 47 (2000). **Invited Paper**. **11 citations**

[9] **S. A. Mikhailov**, *Parametric Excitation of the Edge and Bulk Magnetoplasmons in Low-Dimensional Electron Systems*, in: Edge Excitations of Low-Dimensional Charged Systems (Volume 236 in Horizons in World Physics), ed. by O. Kirichek, Nova Science Publishers, Inc., NY, ch. 7, pp. 171 - 198 (2000). **Invited Paper**

[10] **S. A. Mikhailov**, *Tunable solid-state far-infrared sources: New ideas and prospects*, in Recent Research Developments in Applied Physics **2**, 65-108 (1999). **Invited Review**. **3 citations**

[11] V.A.Volkov and **S. A. Mikhailov**, *Electrodynamics of Two-dimensional Electron Systems in High Magnetic Fields*, in: Landau Level Spectroscopy, ed. by G.Landwehr and E.I.Rashba (vol. 27.2 of Series "Modern Problems in Condensed Matter Sciences", ed. by V.M.Agranovich and A.A.Maradudin), North-Holland, Amsterdam, ch. 15, 855-907 (1991). **Invited Review**. **55 citations**

[12] V.A.Volkov, L.A.Galchenkov, I.M.Grodnenskii, A.Yu.Kamaev, M.V.Kostovetskii, O.R. Matov and **S. A. Mikhailov**, *Dynamic properties of two-dimensional electron systems in strong magnetic fields*. XIII Winter School on Semiconductor Physics (Leningrad, March, 16-20, 1987), Leningrad, 32-72 (1988) (in Russian). **Invited Review**

[D] Articles in refereed journals (and preprints)

[13] **S. A. Mikhailov**, *Second-order response of a uniform three-dimensional electron gas to a longitudinal electric field*, Ann. Phys. (Berlin), **524**, No. 3-4, 182-187 (2012).

[14] **S. A. Mikhailov**, *Theory of the giant plasmon-enhanced second-harmonic generation in graphene and semiconductor two-dimensional electron systems*, Phys. Rev. B **84**, 045432 (2011); Vir. J. Nan. Sci. & Tech., vol. **24**, issue 5 (August 1, 2011). **3 citations**

[15] **S. A. Mikhailov**, *Theory of microwave-induced zero-resistance states in two-dimensional electron systems*, Phys. Rev. B **83**, 155303 (2011). **2 citations**

[16] **S. A. Mikhailov**, *Theory of the nonlinear optical frequency mixing effect in graphene*, Physica E (2010), doi:10.1016/j.physe.2010.10.014 (in press).

[17] E. Hendry, P. J. Hale, J. J. Moger, A. K. Savchenko and **S. A. Mikhailov**, *Coherent nonlinear optical response of graphene*, Phys. Rev. Lett. **105**, 097401 (2010); Vir. J. Nan. Sci. & Tech., vol. **22**, issue 10 (September 6, 2010). **22 citations**

[18] T. Tudorovskiy and **S. A. Mikhailov**, *Intervalley plasmons in graphene*, Phys. Rev. B **82**, 073411 (2010); Vir. J. Nan. Sci. & Tech., vol. **22**, issue 10 (September 6, 2010). **9 citations**

[19] **S. A. Mikhailov**, *Non-linear electrodynamic properties of graphene*, in *Transport and Optical Properties of Nanomaterials*, Proceedings of the International Conference ICTOPON – 2009, Allahabad, India, 5–8 January 2009; edited by M. R. Singh and R. H. Lipson (Melville, New Your, 2009), vol. 1147 of AIP Conference Proceedings, pp. 54-61. **Invited paper**.

[20] A. Hill, **S. A. Mikhailov** and K. Ziegler, *Dielectric function and plasmons in graphene*, Europhys. Lett. **87**, 27005 (2009). **22 citations**

[21] **S. A. Mikhailov**, *Nonlinear cyclotron resonance of a massless quasiparticle in graphene*, Phys. Rev. B **79**, 241309(R) (2009); Vir. J. Nan. Sci. & Tech., vol. **19**, issue 26 (June 29, 2009). **4 citations**

[22] **S. A. Mikhailov**, *Non-linear graphene optics for terahertz applications*, Microelectron. J **40**, 712–715 (2009) **8 citations**

[23] **S. A. Mikhailov** and K. Ziegler, *Nonlinear electromagnetic response of graphene: Frequency multiplication and the self-consistent-field effects*, J. Phys.: Condens. Matter. **20**, 384204 (2008); **invited paper** for a special issue *Terahertz emitters*. **29 citations**

[24] **S. A. Mikhailov**, *Electromagnetic response of graphene: Non-linear effects*, Physica E **40**, 2626–2629 (2008) **8 citations**

[25] **S. A. Mikhailov** and K. Ziegler, *New electromagnetic mode in graphene*, Phys. Rev. Lett. **99**, 016803 (2007); Vir. J. Nan. Sci. & Tech., vol. **16**, issue 4 (July 23, 2007). **57 citations**

[26] **S. A. Mikhailov**, *Non-linear electromagnetic response of graphene*, Europhys. Lett. **79**, 27002 (2007). **24 citations**

[27] **S. A. Mikhailov**, *On the distribution of interacting fermions over single-particle quantum states*, Int. J. Mod. Phys. B **21**, 1729 – 1736 (2007)

[28] **S. A. Mikhailov** and N. A. Savostianova, *Microwave response of a two-dimensional electron stripe: Electrodynamic effects and the influence of contacts*, Int. J. Mod. Phys. B **21**, 1497 – 1501 (2007)

[29] **S. A. Mikhailov**, *Edge magnetoplasmons for a new type of quantum-well microwave detector*, Int. J. Mod. Phys. B **21**, 1491 – 1496 (2007)

[30] A. Satou and **S. A. Mikhailov**, *Excitation of two-dimensional plasmon-polaritons by an incident electromagnetic wave at a contact*, Phys. Rev. B **75**, 045328 (2007) **3 citations**

[31] **S. A. Mikhailov**, *Propagation of edge magnetoplasmons in semiconductor quantum-well structures*, Appl. Phys. Lett. **89**, 042109 (2006). **4 citations**

[32] **S. A. Mikhailov** and N. A. Savostianova, *Influence of contacts on the microwave response of a two-dimensional electron stripe*, Phys. Rev. B. **74**, 045325 (2006); Vir. J. Nan. Sci. & Tech., vol. **14**, issue 6 (August 7, 2006). **15 citations**

[33] V. A. Kovalskii, S. I. Gubarev, I. V. Kukushkin, **S. A. Mikhailov**, J. H. Smet, K. von Klitzing, and W. Wegscheider, *Microwave response of two-dimensional electron rings*, Phys. Rev. B. **73**, 195302 (2006). **8 citations**

[34] P. S. Dorozhkin, S. V. Tovstonog, **S. A. Mikhailov**, I. V. Kukushkin, J. H. Smet, and K. von Klitzing, *Resonant detection of microwave radiation in a circular two-dimensional electron system with quantum point contacts*, Appl. Phys. Lett. **87**, 092107 (2005). **5 citations**

[35] I. V. Kukushkin, **S. A. Mikhailov**, J. H. Smet and K. von Klitzing, *Miniature quantum-well microwave spectrometer operating at liquid-nitrogen temperatures*, Appl. Phys. Lett. **86**, 044101 (2005); Vir. J. Nan. Sci. & Tech., vol. **11**, issue 4 (January 31, 2005). **20 citations**

[36] **S. A. Mikhailov** and N. A. Savostianova, *Microwave response of a two-dimensional electron stripe*, Phys. Rev. B **71**, 035320 (2005); Vir. J. Nan. Sci. & Tech., vol. **11**, issue 4 (January 31, 2005). **26 citations**

[37] **S. A. Mikhailov**, I. V. Kukushkin, J. H. Smet and K. von Klitzing, *New physical principle of detecting electromagnetic radiation*, in Passive Millimetre-Wave and Terahertz Imaging and Technology, edited by Roger Appleby, J. Martin Chamberlain, Keith A. Krapels, Proceedings of SPIE Vol. 5619 (SPIE, Bellingham, WA, 2004) pp. 187 - 197

[38] **S. A. Mikhailov**, *Microwave-induced magnetotransport phenomena in two-dimensional electron systems: Importance of electrodynamic effects*, Phys. Rev. B **70**, 165311 (2004); Vir. J. Nan. Sci. & Tech., vol. **10**, issue 18 (November 1, 2004). **65 citations**

[39] I. V. Kukushkin, M. Yu. Akimov, J. H. Smet, **S. A. Mikhailov**, K. von Klitzing, I. L. Aleiner and V. I. Falko, *New type of B-periodic magneto-oscillations in a two-dimensional electron system induced by microwave irradiation*, Phys. Rev. Lett. **92**, 236803 (2004); Vir. J. Nan. Sci. & Tech., vol. **9**, issue 24 (June 21, 2004). **52 citations**

[40] I. V. Kukushkin, D. V. Kulakovskii, **S. A. Mikhailov**, J. H. Smet and K. von Klitzing, *Observation of plasmon-polariton modes in two-dimensional electron systems*, JETP Letters **77**, 497-501 (2003). **8 citations**

[41] I. V. Kukushkin, J. H. Smet, **S. A. Mikhailov**, D. V. Kulakovskii, K. von Klitzing and W. Wegscheider, *Observation of retardation effects in the spectrum of two-dimensional plasmons*, Phys. Rev. Lett. **90**, 156801 (2003); Vir. J. Nan. Sci. & Tech., vol. **7**, issue 17 (April 28, 2003). **54 citations**

[42] **S. A. Mikhailov**, *Two ground-state modifications of quantum-dot beryllium*, Phys. Rev. B **66**, 153313 (2002); Vir. J. Nan. Sci. & Tech., vol. **6**, issue 19 (November 4, 2002). **21 citations**

[43] **S. A. Mikhailov** and N. A. Savostianova, *Quantum-dot lithium in strong-interaction regime: Depolarization of electron spins by magnetic field*, Phys. Rev. B **66**, 033307 (2002); Vir. J. Nan. Sci. & Tech., vol. **6**, issue 5 (July 29, 2002). **21 citations**

[44] **S. A. Mikhailov** and K. Ziegler, *Floating Wigner molecules and possible phase transitions in quantum dots*, European Physical Journal B **28**, 117-120 (2002). **5 citations**

[45] **S. A. Mikhailov**, *Quantum-dot lithium in zero magnetic field: Electronic properties, thermodynamics and Fermi liquid - Wigner solid crossover in the ground state*, Phys. Rev. B **65**, 115312 (2002); Vir. J. Nan. Sci. & Tech., vol. **5**, issue 11 (March 18, 2002). **47 citations**

[46] **S. A. Mikhailov**, *Few-electron quantum dots and disks in zero magnetic field: Possible indications on a liquid-solid transition*, Physica E **12**/1-4, 884-887 (2002). **6 citations**

[47] J. Kainz, **S. A. Mikhailov**, A. Wensauer and U. Rössler, *Quantum dots in high magnetic fields: Calculation of ground state properties*, Phys. Rev. B **65**, 115305 (2002). **24 citations**

[48] J. Kainz, **S. A. Mikhailov**, A. Wensauer and U. Rössler, *Ground state energies of quantum dots in high magnetic fields: A new approach*, Physica E **12**/1-4, 888-891 (2002). **1 citation**

[49] **S. A. Mikhailov**, *A new approach to the ground state of quantum-Hall systems. Basic principles*, Physica B **299**, 6-31 (2001). **9 citations**

[50] **S. A. Mikhailov**, *Tunable solid-state terahertz-wave sources: new ideas and prospects*, in Terahertz Spectroscopy and Applications II, J. Martyn Chamberlain, Editor, Proceedings of SPIE Vol. 3828, 139-150 (1999). **3 citations**

[51] **S. A. Mikhailov**, *Active medium engineering in systems of quantum wires and dots: Novel artificial structures for submillimeter wave oscillators*, Europhys. Lett. **46**, 313-318 (1999)

[52] **S. A. Mikhailov**, *Parametric amplification of electromagnetic waves in low-dimensional electron systems*, Appl. Phys. Lett. **73**, 1886-1888 (1998). **1 citation**

[53] **S. A. Mikhailov**, *Plasma instability and amplification of electromagnetic waves in low-dimensional electron systems*, Phys. Rev. B **58**, 1517-1532 (1998). **60 citations**

[54] **S. A. Mikhailov**, *Radiative damping of collective excitations in periodic arrays of quantum wires and dots*, Superlatt. and Microstruct. **23**, 345-348 (1998). **3 citations**

[55] **S. A. Mikhailov**, *Response of a system of strongly interacting particles to an inhomogeneous external field*, Phys. Lett. A **240**, 354-358 (1998). **3 citations**

[56] O. Mayrock, **S. A. Mikhailov**, O. Steffens and U. Rössler, *Observability of the acoustic plasma mode in double-layered quantum dots*, Physica E **1**, 232-234 (1997). **1 citation**

[57] O. Mayrock, **S. A. Mikhailov**, T. Darnhofer and U. Rössler, *Double-layered quantum dots in a magnetic field: The ground state and the far-infrared response*, Phys. Rev. B **56**, 15760-15769 (1997). **18 citations**

[58] **S. A. Mikhailov** and N. A. Savostianova, *Terahertz wave amplification, stimulated by dc electric current, in grating coupled low-dimensional electron systems*, Appl. Phys. Lett. **71**, 1308-1310 (1997). **10 citations**

[59] **S. A. Mikhailov**, *Comment on "Extremely Low Frequency Plasmons in Metallic Mesostructures"*, Phys. Rev. Lett. **78**, 4135 (1997). **7 citations**

[60] **S. A. Mikhailov**, *Theory of electromagnetic response and collective excitations of a square lattice of antidots*, Phys. Rev. B **54**, R14293-R14296 (1996). **15 citations**

[61] **S. A. Mikhailov**, *Radiative decay of collective excitations in an array of quantum dots*, Phys. Rev. B **54**, 10335-10338 (1996). **19 citations**

[62] V. A. Volkov, **S. A. Mikhailov** and D. V. Posvyanskii, *Dynamic response of semiconductor tunnel structures: Effect of tunneling times*, Phys. Low-Dim. Struct. **10/11**, 133-140 (1995)

[63] **S. A. Mikhailov** and V. A. Volkov, *Theory of electromagnetic response and collective excitations in antidots*, Phys. Rev. B **52**, 17260-17268 (1995). **20 citations**

[64] **S. A. Mikhailov** and V. A. Volkov, *Quantum capacitance of a tunnel structure due to finite tunneling times*, Pis'ma Zh. Eksp. Teor. Fiz. **61**, 508-513 (1995) [JETP Lett. **61**, 524-529 (1995)]. **5 citations**

[65] **S. A. Mikhailov**, *Magnetoplasma excitations of nonuniform 2D electron systems in a strong magnetic field*, Pis'ma Zh. Eksp. Teor. Fiz. **61**, 412-416 (1995) [JETP Lett. **61**, 418-423 (1995)]. **9 citations**

[66] M. N. Feiginov, **S. A. Mikhailov** and V. A. Volkov, *Tunnel junction plasmons in the hydrodynamic approach*, Phys. Low-Dim. Struct. **9**, 1-10 (1994). **2 citations**

[67] **S. A. Mikhailov** and V. A. Volkov, *Collective excitations in antidots*, Phys. Low-Dim. Struct. **1**, 31-36 (1994). **8 citations**

[68] **S. A. Mikhailov**, *Low-frequency dynamics of quantum wire arrays in a strong magnetic field*, Pis'ma Zh. Eksp. Teor. Fiz. **57**, 570-574 (1993) [JETP Lett. **57**, 586-590 (1993)]. **13 citations**

[69] **S. A. Mikhailov** and V. A. Volkov, *Inter-edge magnetoplasmons in inhomogeneous two-dimensional electron systems*, J. Phys.: Condens. Matter **4**, 6523-6538 (1992). **19 citations**

[70] V. B. Sandomirskii, V. A. Volkov, G. R. Aizin and **S. A. Mikhailov**, *Some properties of two-dimensional electron systems at semiconductor interfaces*, Electrochimica Acta **34**, 3-17 (1989). **Invited Review**. **9 citations**

[71] V. A. Volkov and **S. A. Mikhailov**, *Edge magnetoplasmons: low-frequency weakly damped excitations in inhomogeneous two-dimensional electron systems*, Zh. Eksp. Teor. Fiz. **94**, 217-241 (1988) [Sov. Phys. JETP **67**, 1639-1653 (1988)]. **143 citations**

[72] V. A. Volkov, D. V. Galchenkov, L. A. Galchenkov, I. M. Grodnenskii, O. R. Matov and **S. A. Mikhailov**, *Edge magnetoplasmons under conditions of the quantum Hall effect*, Pis'ma Zh. Eksp. Teor. Fiz. **44**, 510-513 (1986) [JETP Lett. **44**, 655-659 (1986)]. **44 citations**

[73] V. A. Volkov, D. V. Galchenkov, L. A. Galchenkov, I. M. Grodnenskii, O. R. Matov, **S. A. Mikhailov**, A. P. Senichkin and K. V. Starostin, *Experimental observation of quantization of the Faraday rotation in a 2D electron system*, Pis'ma Zh. Eksp. Teor. Fiz., **43**, 255-257 (1986) [JETP Lett. **43**, 326-329 (1986)]. **30 citations**

[74] V. A. Volkov and **S. A. Mikhailov**, *Theory of edge magnetoplasmons in a two-dimensional electron gas*, Pis'ma Zh. Eksp. Teor. Fiz. **42**, 450-453 (1985) [JETP Lett. **42**, 556-560 (1985)]. **52 citations**

[75] V. A. Volkov and **S. A. Mikhailov**, *Quantization of the Faraday effect in systems with a quantum Hall effect*, Pis'ma Zh. Eksp. Teor. Fiz. **41**, 389-390 (1985) [JETP Lett. **41**, 476-478 (1985)]. **26 citations**

[76] V. A. Volkov and **S. A. Mikhailov**, *Two-dimensional plasmons in inversion layers on high-index silicon surfaces*, Fiz. Tverd. Tela **25**, 1270-1275 (1983) [Sov. Phys. Solid State **25**, 730-733 (1983)]. **2 citations**

[E] Invited conference talks

[77] **S. A. Mikhailov**, *Nonlinear THz properties of graphene*, International Workshop "THz dynamics in carbon based nanostructures", March 5–7, 2012, Helmholtz-Zentrum Dresden-Rossendorf, Germany.

[78] **S. A. Mikhailov**, *Plasma effects in the higher harmonics generation in graphene*, Ninth International Conference of Computational Methods in Sciences and Engineering, Symposium "Electrodynamics of Graphene: Theory, Experiment and Applications"; October 2–7, 2011, G-Hotels, Halkidiki, Greece.

[79] **S. A. Mikhailov**, *Non-linear electrodynamics of graphene*, International Conference on Transport and Optical Properties of Nanomaterials; January 5–8, 2009, Allahabad, India (Scientific Program and Abstracts, p. 89).

[80] **S. A. Mikhailov**, *Non-linear graphene optics for terahertz applications*, 15th International Conference on Superlattices, Nanostructures and Nanodevices; August 3-8, 2008, Natal, Brazil

[81] **S. A. Mikhailov**, *Quantum Hall systems in microwave fields*, International Conference *Strongly correlated systems in low dimension*, July 2–8, 2006, Monte Verita, Ascona, Switzerland

[F] Contributions to academic conferences (refereed)

[82] **S. Mikhailov**, *Graphene Based Terahertz Emitter*, International Conference "Graphene 2012", Brussels, Belgium, April 10 – 13, 2012, Book of Abstracts, p. 133.

[83] **S. Mikhailov**, *Self-consistent theory of the second-harmonic generation in graphene*, DPG Spring Meeting, Berlin, March 25 – 30, 2012, Verhandlungen der Deutschen Physikalischen Gesellschaft, TT 39.4, p. 438.

[84] **S. Mikhailov** and T. Tudorovskiy, *Low-frequency inter-valley plasmons in graphene*, AIP Conf. Proc. **1399**, 757-758 (2011); doi:10.1063/1.3666597.

[85] **S. Mikhailov**, *Non-linear electrodynamics and optics of graphene*, AIP Conf. Proc. **1399**, 767-768 (2011); doi:10.1063/1.3666602.

[86] **S. Mikhailov**, *Plasma waves and plasmon enhanced harmonic generation in graphene*, International Conference ImagineNano 2011, Symposium Graphene 2011; Bilbao, Spain, 10-14 April 2011.

[87] **S. Mikhailov**, *Nonlinear electrodynamic and optical properties of graphene*, Mediterranean Conference on Innovative Materials and Applicationbs (CIMA), Beirut, Lebanon 2011, 15-17 March 2011.

[88] **S. Mikhailov**, *Theory of the microwave induced zero resistance states in two-dimensional electron systems*, DPG Spring Meeting, Dresden 2011, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 18.4, p. 348.

[89] **S. Mikhailov**, *Cyclotron resonance of massless quasiparticles in graphene*, The 19th International Conference on the Application of High Magnetic Fields in Semiconductor Physics and Nanotechnology, Horiba International Conference, Fukuoka, Japan, August 1 – 6, 2010. Program, TuP-8.

[90] **S. Mikhailov**, *Non-linear electrodynamics and optics of graphene*, 30th International Conference on the Physics of Semiconductors, ICPS-30, Seoul, Korea, July 25 – 30, 2010. Technical Program, P2-219, p. 918.

[91] T. Tudorovskiy and **S. Mikhailov**, *Low-frequency inter-valley plasmons in graphene*, 30th International Conference on the Physics of Semiconductors, ICPS-30, Seoul, Korea, July 25 – 30, 2010. Technical Program, P2-218, p. 917.

[92] **S. Mikhailov**, *Frequency multiplication and frequency mixing effects in graphene*, The 16th International Conference on Superlattices, Nanostructures and Nanodevices, ICSNN-2010, Beijing, China, July 18 – 23, 2010, Final Program and Abstracts, p. 55.

[93] **S. Mikhailov**, *Theory of the nonlinear optical frequency mixing effect in graphene*, Spring Meeting of the European Material Research Society, Strasbourg, June 7–11, 2010. Symposium P: Science and technology of nanotubes, nanowires and graphene, Technical Program, p. 14.

[94] E. Hendry, P. Hale, J. Moger, A. Savchenko, and **S. Mikhailov**, *First observation of the strong nonlinear optical response of graphene measured by four-wave mixing*, DPG Spring Meeting, Regensburg 2010, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 61.6, p. 388.

[95] **S. Mikhailov** and T. Tudorovskiy, *Inter-valley plasmons and local-field effects in graphene*, DPG Spring Meeting, Regensburg 2010, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 50.5, p. 371.

[96] **S. A. Mikhailov**, *Non-linear electrodynamics of graphene*, The 18th International Conference on Electronic Properties of Two-Dimensional Systems, EP2DS-18, Abstracts, p. 245, July 19 – July 24, 2009, Kobe International Conference Center, Japan.

[97] **S. A. Mikhailov**, *Graphene – a new material for terahertz applications*, 14th International Conference on Narrow Gap Semiconductors and Systems, NGS^2-14, July 13–17, 2009, Sakura Hall, Tohoku University, Sendai, Japan. Book of abstracts, pp. 36-37.

[98] **S. A. Mikhailov**, *Theory of the non-linear electromagnetic response of graphene*, Spring Meeting of the European Material Research Society, Strasbourg, June 8–12, 2009. Symposium N, N6-1.

[99] A. Hill, **S. A. Mikhailov** and K. Ziegler, *Plasmons in graphene*, DPG Spring Meeting, Dresden 2009, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 48.18, p. 308.

[100] **S. A. Mikhailov**, *Cyclotron resonance of a massless quasi-particle in graphene*, DPG Spring Meeting, Dresden 2009, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 13.11, p. 271.

[101] T. Tudorovskiy and **S. A. Mikhailov**, *Plasmon modes in graphene*, ICTP Conference *Graphene Week 2008*, August 2008, Trieste, Italy

[102] **S. A. Mikhailov** and K. Ziegler, *Non-linear terahertz optics of graphene*, 22nd General Conference of the Condensed Matter Division of the European Physical Society; August 2008, Rome, Italy

[103] **S. A. Mikhailov**, *Non-linear optics of graphene for terahertz applications*, Program Book, 15th International Conference on Superlattices, Nanostructures and Nanodevices, Natal, Brazil, 3-8 August 2008, p. 22.

[104] **S. A. Mikhailov** and K. Ziegler, *Electromagnetic response of graphene*, Verhandlungen der Deutschen Physikalischen Gesellschaft, TT 21.1, p. 714 (2008)

[105] **S. A. Mikhailov** and K. Ziegler, *Electromagnetic response of graphene: A new collective mode*, International Conference on Electronic Properties of Two-Dimensional Systems and Modulated Semiconductor Structures, Genova, Italy, July 15-20, 2007. Abstract book, p. 327-328

[106] **S. A. Mikhailov**, *Electromagnetic response of electrons in graphene*, Symposium L: "Electron Transport in Low-Dimensional Carbon Structures", Spring Meeting of the European Material Research Society, E-MRS 2007, Strasbourg, France, May 28 – June 1, 2007

[107] **S. A. Mikhailov** and A. Satou, *Two-dimensional electron systems under microwave irradiation: Influence of contacts*, Verhandlungen der Deutschen Physikalischen Gesellschaft, HL 36.8, p. 397 (2007)

[108] **S. A. Mikhailov**, *Edge magnetoplasmons for a new type of quantum-well microwave detector*, 17th International Conference on High Magnetic Fields in Semiconductor Physics (HMF), Würzburg, Germany, 30 July – 4 August 2006, HMF-2-2

[109] **S. A. Mikhailov** and N. A. Savostianova, *Microwave response of a two-dimensional electron stripe: Electrodynamic effects and the influence of contacts*, 17th International Conference on High Magnetic Fields in Semiconductor Physics (HMF), Würzburg, Germany, 30 July – 4 August 2006, HMF-2-3

[110] **S. A. Mikhailov**, I. V. Kukushkin, J. H. Smet and K. von Klitzing, *Frequency tunable detection and spectroscopy of sub-terahertz radiation at liquid-nitrogen temperatures*, Ninth International Symposium on Contemporary Photonics Technology, CPT 2006, Technical Digest, 11-13 January 2006, Tokyo Conference Center, Tokyo, Japan

[111] **S. A. Mikhailov**, I. V. Kukushkin, J. H. Smet and K. von Klitzing, *New physical principle of detecting electromagnetic radiation*, SPIE European Symposium on Optics/Photonics in Security & Defence, 25-28 October 2004, London, UK

[112] I. V. Kukushkin, J. H. Smet, **S. A. Mikhailov**, D. V. Kulakovskii, K. von Klitzing and W. Wegscheider, *Observation of retardation effects in the spectrum of two-dimensional plasmons*, in International Symposium "Quantum Hall Effect: Past, Present and Future", Stuttgart, 2-5 July, 2003, General Information, Program and Abstracts, p. 70

[113] **S. A. Mikhailov**, *Possible origin of the microwave-induced zero-resistance states in high-electron-mobility two-dimensional electron systems*, in International Symposium "Quantum Hall Effect: Past, Present and Future", Stuttgart, 2-5 July, 2003, General Information, Program and Abstracts, p. 69

[114] **S. A. Mikhailov** and N. A. Savostianova, *Magnetic field induced depolarization of electron spins and melting of a Wigner molecule in quantum-dot lithium*, in Physics of Semiconductors 2002. Proceedings of the 15th International Conference on High Magnetic Fields in Semiconductor Physics, Oxford, 5-9 August 2002, Institute of Physics Conference Series Number 171, edited by A.R. Long and J.H. Davies (Institute of Physics Publishing, Bristol (UK) and Philadelphia (USA), 2003), p. A14. Book of Abstracts, p. 40; Oxford, UK, 5-9 August, 2002

[115] **S. A. Mikhailov**, *Quantum-dot beryllium: A carbon-like atom in a two-dimensional world*, in Physics of Semiconductors 2002. Proceedings of the 26th International Conference on the Physics of Semiconductors, Edinburgh, 29 July - 2 August 2002, Institute of Physics Conference Series Number 171, edited by A.R. Long and J.H. Davies (Institute of Physics Publishing, Bristol (UK) and Philadelphia (USA), 2003), p. P202. Abstracts, Part III, p. 264; Edinburgh, Scotland, UK, 29 July - 2 August 2002

[116] **S. A. Mikhailov**, *Few-electron quantum dots and disks in zero magnetic field: Possible indications on a liquid-solid transition*, The 14th International Conference on the Electronic Properties of Two-Dimensional Systems, Conference Workbook, Part Two, pp. 967-970; Prague, Czech Republic, 30.07-03.08.2001

[117] J. Kainz, **S. A. Mikhailov**, A. Wensauer and U. Rössler, *Ground state energies of quantum dots in high magnetic fields: A new approach*, The 14th International Conference on the Electronic Properties of Two-Dimensional Systems, Conference Workbook, Part Two, pp. 951-954; Prague, Czech Republic, 30.07-03.08.2001

[118] **S. A. Mikhailov**, *A new method in the many-body theory of quantum-Hall systems*, Proceedings of the 25th International Conference on the Physics of Semiconductors, Edited by N. Miura and T. Ando, Springer-Verlag Berlin Heidelberg 2001, Part II, pp. 929-930

[119] J. Kainz, **S. A. Mikhailov**, A. Wensauer and U. Rössler, *Quantendots in starken Magnetfeldern - Ein neues Verfahren*, in: Verhandlungen der Deutschen Physikalischen Gesellschaft, Fruhjahrstagung Hamburg 1/2001, p. 165, HL 7.59

[120] **S. A. Mikhailov**, *The ground and excited states of a two-dimensional electron system in strong magnetic fields*, in: Verhandlungen der Deutschen Physikalischen Gesellschaft, Fruhjahrstagung Regensburg 2000 (27.03-31.03.2000), p.529

[121] **S. A. Mikhailov**, *Tunable solid-state terahertz-wave sources: new ideas and prospects*, SPIE International Symposium on Terahertz Spectroscopy and Applications, Munich, Germany, 16-18 June 1999

[122] **S. A. Mikhailov**, *Submillimeter-wave semiconductor amplifiers and oscillators: Proposal of novel devices*. The Proceedings of the 24th International Conference on the Physics of Semiconductors (ICPS-24), Jerusalem, Israel, August 2-7, 1998. World Scientific, CD-ROM edition, paper 0351

[123] **S. A. Mikhailov**, *Tunable solid-state far-infrared amplifiers: New ideas and promises*, The 24th International Conference on the Physics of Semiconductors (ICPS-24), Abstracts, Jerusalem, Israel, 1998; Vol. 1, MO-P190

[124] **S. A. Mikhailov** and N. A. Savostianova, *Low-dimensional electron semiconductor structures as tunable far-infrared amplifiers and generators*, 6th International Symposium "Nanostructures: Physics and Technology", St Petersburg, Russia, June 22-26, 1998. Proceedings, pp. 176-179

[125] **S. A. Mikhailov**, *A new type of tunable solid-state far-infrared lasers*, European Conference on Lasers and Electro-Optics (CLEO/Europe '98), Glasgow, UK, September 13-18, 1998. Advance Programme, p. 53

[126] O. Mayrock, **S. A. Mikhailov**, O. Steffens and U. Rössler, *Double-layer quantum dots: Ground state and collective modes*. The Workbook "International Workshop on Novel Physics in Low-Dimensional Electron Systems", Dresden, Germany, 28.07-08.08.1997. Post 2.20

[127] **S. A. Mikhailov**, *Far-infrared response and collective excitations of a square lattice of antidots*, in: 12th International Conference High Magnetic Fields in the Physics of Semiconductors, ed. by G. Landwehr and W. Ossau (World Scientific, Singapore, 1997), vol. 2, p. 773-776

[128] **S. A. Mikhailov** and N. Savostianova, *Terahertz wave amplification, stimulated by dc electric current, in low-dimensional electron systems*, Verhandlungen der Deutschen Physikalischen Gesellschaft. Fruhjahrstagung Munster 1997, p. 759 (HL 32.13)

[129] **S. A. Mikhailov**, *Radiative damping of collective excitations in periodic arrays of quantum wires and dots*. Ninth International Conference on Superlattices, Microstructures and Microdevices (Liege, Belgium; July, 14-19 1996), Abstract Workbook, ThPPT-25

[130] V.A.Volkov, **S. A. Mikhailov**, D.V.Posvyanskii and M.N.Feiginov, *Effect of tunneling times on dynamic response of semiconductor tunnel structures*. Abstracts of the 2nd Russian Conf. on Semiconductor Physics, Zelenogorsk, St.-Petersburg State Techn. Univ. Press, 2, 143 (1996) (in Russian)

[131] **S. A. Mikhailov**, *Edge magnetoplasmons in 2D electron systems in a strong magnetic field: The role of edge channels*. Verhandlungen der Deutschen Physikalischen Gesellschaft. Fruhjahrstagung des Arbeitskreises Festkörperphysik bei der DPG, Regensburg, 25 - 29 März 1996, 1525

[132] **S. A. Mikhailov** and V.A.Volkov, *Influence of a tunneling time on a response function and plasma waves of a structure semiconductor - tunnel junction - semiconductor*. Verhandlungen der Deutschen Physikalischen Gesellschaft. Fruhjahrstagung des Arbeitskreises Festkörperphysik bei der DPG, Regensburg, 25 - 29 März 1996, 1517

[133] **S. A. Mikhailov**, D.V.Posvyanskii and V.A.Volkov, *Effect of tunneling times on the dynamic response of semiconductor resonant tunnel diodes*. Proc. Int. Semic. Device Research Symposium, Charlottesville, USA; Academic Outreach, Univ. of Virginia, 2, 665-668 (1995)

[134] V.A.Volkov, **S. A. Mikhailov** and D.V.Posvyanskii, *Influence of tunneling times on the dynamic response of the semiconductor tunnel structures*. Int. Workshop "Physics and Computer Modeling of Devices Based on Low-Dimensional Structures", Aizu-Wakamatsu, Japan. Workbook, eds. V.Ryzhii, C.Hamaguchi, V.Mitin, M.Ershov, 59-63 (1995)

[135] V.A.Volkov, **S. A. Mikhailov** and D.V.Posvyanskii, *The dynamic response of semiconductor tunnel structures: Effect of tunneling times*. Physics of Low-Dimensional Structures - 2 (Abstracts), Dubna, 206 (1995)

[136] **S. A. Mikhailov** and V.A.Volkov, *Quantum capacity of tunnel junctions due to the finiteness of tunneling times*. International Symposium 95 "Nanostructures: Physics and Technology", Abstracts of Invited Lectures and Contributed Papers, St Peterburg, Russia, 261 (1995)

[137] **S. A. Mikhailov**, *Inter-edge magnetoplasma excitations in quantum Hall effect (QHE) regime*. Intern. Symposium Heterostructures in Science and Technology Wurzburg, Abstracts, 54-55 (1995)

[138] **S. A. Mikhailov** and V.A.Volkov, *Theory of collective excitations in antidots*. 7th International Conference on Superlattices, Microstructures and Microdevices, Banff, Alberta, Canada, Program and Abstracts, 527-528 (1994)

[139] **S. A. Mikhailov** and V.A.Volkov, *Tunnel junction plasmons in semiconductor structures*. International Symposium "Nanostructures: Physics and Technology", Abstracts of Invited Lectures and Contributed Papers, St Peterburg, Russia, 280 (1994)

[140] **S. A. Mikhailov** and V.A.Volkov, *Collective excitations in antidots*. 1-st Intern. Conf. on the Physics of Low-Dimensional Structures (Abstracts), Chernogolovka, 7 (1993)

[141] V.A.Volkov and **S. A. Mikhailov**, *Theory of collective excitations in the systems of antidots*. Proc. of the 1-st Russian Conf. on Semiconductor Physics, Nizhny Novgorod, Russia, 1, 30 (1993) (in Russian)

[142] **S. A. Mikhailov** and V.A.Volkov, *Collective excitations in the systems of antidots*. International Symposium "Nanostructures: Physics and Technology", Abstract of Invited Lectures and Contributed Papers, St Peterburg, Russia, 31 (1993)

[143] V.A.Volkov and **S. A. Mikhailov**, *The theory of edge magnetoplasma waves in two-dimensional electron systems*. Proc. (extended abstracts) of the II International Symposium on Surface Waves in Solids and Layered Structures, Varna, Bulgaria, 1, 94-96 (1989)

[144] V.A.Volkov and **S. A. Mikhailov**, *Low-frequency collective excitations in an inhomogeneous two-dimensional electron system in a quantized magnetic field*. Proc. of the XIII All-Union meeting on the theory of semiconductors, Erevan, 79 (1987) (in Russian)

[145] V.A.Volkov and **S. A. Mikhailov**, *Edge magnetoplasmons in a two-dimensional electron system*. Proc. of the VI All-Union Symposium on Plasma and Instabilities in Semiconductors, Vilnius, 56-57 (1986) (in Russian)

[146] V.A.Volkov, D.V.Galchenkov, L.A.Galchenkov, I.M.Grodnenskii, O.R.Matov, **S. A. Mikhailov**, A.P.Senichkin and K.V.Starostin, *Measurement of the microwave Faraday effect in a two-dimensional electron system*. Proc. of the XXIV All-Union meeting on low temperature physics, Tbilisi, 2, 186-187 (1986) (in Russian)

[147] V.A.Volkov and **S. A. Mikhailov**, *Edge magnetoplasmons in a two-dimensional electron system on a helium surface*. Proc. of the XXIV All-Union meeting on low temperature physics, Tbilisi, 1, 17-18 (1986) (in Russian)

[148] V.A.Volkov and **S. A. Mikhailov**, *Edge magnetoplasmons in two-dimensional electron gas*. Proc. of the International Symposium on Surface Waves in Solids and Layered Structures, Novosibirsk, 2, 269-272 (1986)

[149] V.A.Volkov and **S. A. Mikhailov**, *Low frequency weakly damped magnetoplasmons in bounded two-dimensional electron gas*. Proc. of the IV All-Union conference on physical processes in semiconductor heterostructures, Minsk, 1, 102-103 (1986) (in Russian)

[150] V.A.Volkov, D.V.Galchenkov, L.A.Galchenkov, I.M.Grodnenskii, O.R.Matov, **S. A. Mikhailov**, A.P.Senichkin and K.V.Starostin, *Quantization of the Faraday rotation in a two-dimensional electron system in a GaAs/GaAlAs heterojunction*. Proc. of the IV All-Union conference on physical processes in semiconductor heterostructures, Minsk, 1, 38-39 (1986) (in Russian)

[151] V.A.Volkov and **S. A. Mikhailov**, *Edge magnetoplasmons in the quantum Hall effect regime*. Proc. of All-Union school on surface physics, Chernogolovka, 71 (1986) (in Russian)

[152] V.A.Volkov and **S. A. Mikhailov**, *Faraday effect in the quantum Hall effect regime*. Proc. of XII meeting on the theory of semiconductors, Tashkent, 1, 161-162 (1985) (in Russian)

[153] V.A.Volkov and **S. A. Mikhailov**, *Quantization of the Faraday effect in systems with a quantum Hall effect*. Proc. of X All-Union conference on semiconductor physics, Minsk, 2, 31-32 (1985) (in Russian)

[154] V.A.Volkov and **S. A. Mikhailov**, *The theory of magnetoplasmons in high-index inversion layers*, Proc. of VIII meeting on the physics of surface phenomena in semiconductors, Kiev, 1, 71-72 (1984) (in Russian)

[155] V.A.Volkov and **S. A. Mikhailov**, *On the theory of two-dimensional plasmons in inversion layers on high-index silicon surfaces*. Proc. XI meeting on the theory of semiconductors, Uzhgorod, 125-126 (1983) (in Russian)

[G] Contributions to academic conferences (non-refereed)

[156] **S. A. Mikhailov** and R.R.Gerhardts, *Theoretical studies of quantum Hall systems in microwave fields*, Kolloquium zum DFG-Schwerpunktprogramm Quanten-Hall-Systeme, Bad Honnef, 18-19 December 2003

[157] **S. A. Mikhailov**, D. Braak and K. Ziegler, *Interacting electrons in restricted geometries*, International Workshop on "Ordering Phenomena in Transition Metal Oxides", Kloster Irsee, October 7-10, 2001

[158] **S. A. Mikhailov**, *Quantum dots: Exact diagonalization technique*, Seminar "Quantenpunkte: Physikalische Eigenschaften und mathematische Analyse", Altmühltal, Germany, June 14, 2000

[159] **S. A. Mikhailov**, *On the ground state of a two-dimensional electron system in strong magnetic fields*, Workshop of the Graduirtenkolleg "Komplexität in Festkörpern: Phononen, Elektronen und Strukturen", Windberg, Germany, April 13, 2000

[H] Invited colloquium and seminar talks

1. *Linear and nonlinear electrodynamics of graphene*, Suzhou Institute of Nanotech and Nanobionics (SINANO), Chinese Academy of Science, Suzhou, P. R. China. Dr. Chunping Jiang, March 8, 2011

2. *Microwave induced zero-resistance states in two-dimensional electron system*, Suzhou Institute of Nanotech and Nanobionics (SINANO), Chinese Academy of Science, Suzhou, P. R. China. Dr. Chunping Jiang, March 8, 2011

3. *Edge magnetoplasmons and a new method of detecting electromagnetic radiation*, Suzhou Institute of Nanotech and Nanobionics (SINANO), Chinese Academy of Science, Suzhou, P. R. China. Dr. Chunping Jiang, March 7, 2011

4. *Plasma instability and amplification of electromagnetic waves in low-dimensional electron systems*, Suzhou Institute of Nanotech and Nanobionics (SINANO), Chinese Academy of Science, Suzhou, P. R. China. Dr. Chunping Jiang, March 4, 2011

5. *Electromagnetic response and waves in plasma*, Suzhou Institute of Nanotech and Nanobionics (SINANO), Chinese Academy of Science, Suzhou, P. R. China. Dr. Chunping Jiang, March 3, 2011

6. *Linear and nonlinear electrodynamics and optics of graphene*, Martin-Luther University Halle-Wittenberg, Halle, Germany. Prof. J. Berakdar, June 21, 2010

7. *Plasma oscillations in low-dimensional electron systems*, University of Augsburg (Colloquim talk), Germany. Prof. U. Eckern. November 9, 2009

8. *Nonlinear electrodynamics of graphene*, High Magnetic Field Laboratory, Grenoble, France. Prof. M. Potemskii. August 21, 2009

9. *Nonlinear electrodynamics of graphene*, University of Oxford, Oxford, UK. Prof. R. Nicholas. May 21, 2009

10. *Nonlinear electrodynamic properties of graphene*, Max-Planck Institute for Solid State Research, Stuttgart, Germany. Prof. K. von Klitzing. Feb 09, 2009

11. *Non-linear electrodynamics of graphene*, High Magnetic Field Laboratory, Research Center Dresden-Rossendorf, Dresden, Germany. Dr. S. Zvyagin. Apr. 18, 2008

12. *Electrodynamic properties of graphene*, Ludwig-Maximilian University, München, Germany. Prof. J. Kotthaus. Oct 29, 2007

13. *Electrodynamic properties of graphene*, University of Regensburg, Regensburg, Germany. Prof. D. Weiss. Apr 26, 2007

14. *A new method of detection and spectroscopy of microwave radiation*, Tohoku University, Sendai, Japan. Prof. T. Otsuji. Jan 09, 2006

15. *Plasma instability and amplification of electromagnetic waves in low-dimensional electron systems*, Tohoku University, Sendai, Japan. Prof. T. Otsuji. Jan 09, 2006

16. *A new method of detection and spectroscopy of microwave radiation*, University of Aizu, Aizu-Wakamatsu, Japan. Prof. V. Ryzhii. Jan 06, 2006

17. *A new method of detection and spectroscopy of microwave radiation*, University of Tokyo, Japan. Profs. K. Hirakawa and S. Komiyama. Dec 27, 2005

18. *A new method of detection and spectroscopy of microwave radiation*, Tokyo Institute of Technology, Japan. Prof. M. Asada. Dec 26, 2005

19. *Coulomb interaction effects in few-electron parabolic quantum dots*, Institute for Theoretical Physics II, University of Augsburg, Germany. Prof. K. Ziegler. Nov 17, 2005

20. *Microwave response of a two-dimensional electron stripe*, Max-Planck Institute for Solid State Research, Stuttgart, Germany. Prof. K. von Klitzing. Nov 24, 2004

21. *Plasma waves in solids: From fundamental physics to applications*, Chalmers Physics Colloquium Series, Chalmers University of Technology, Gothenburg, Sweden. Prof. V. Belitsky. Nov 11, 2004

22. *Quantum Hall systems in microwave fields*, Uppsala University, Sweden. Prof. O. Eriksson. Mar 26, 2004

23. *A new type of giga- and terahertz-wave detectors*, Acreo AB, Hudiksvall, Sweden. Dr. I. Hoglund. Mar 2, 2004

24. *Current-driven plasma instabilities in low-dimensional electron systems as a possible way to tunable, portable sources of terahertz radiation*, Mid Sweden University, ITM, Electronics Design Division, Sundsvall, Sweden. Prof. S. Edvardsson. Apr 16, 2003

25. *Exact diagonalization study of quantum-dots*, Mid Sweden University, ITM, Electronics Design Division, Sundsvall, Sweden. Prof. S. Edvardsson. Apr 15, 2003

26. *Two ground-state modifications of quantum-dot beryllium: An exact-diagonalization study*, Max-Planck Unstitute for Solid State Research, Stuttgart, Germany. Prof. K. von Klitzing. Jun 03, 2002

27. *Quantum-dot lithium in zero and finite magnetic fields: An exact-diagonalization study*, Max-Planck Unstitute for Solid State Research, Stuttgart, Germany. Prof. K. von Klitzing. May 27, 2002

28. *Electronic properties of quantum-dot lithium*, Helsinki University of Technology, Finnland. Prof. R. Nieminen. Dec 17, 2001

29. *Three-body quantum-mechanical problem of quantum-dot lithium: An exact-diagonalization study*, Institut für Technische Physik III, Universität Erlangen-Nürnberg, Erlangen, Germany. Prof. O. Pankratov. Dec 04, 2001

30. *Electronic and thermodynamic properties of quantum-dot lithium: An exact-diagonalization study*, Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany. Prof. K. von Klitzing. Nov 30, 2001

31. *Three-body quantum-mechanical problem of quantum-dot lithium: An exact-diagonalization study*, Fakultät für Physik, Albert-Ludwigs-Universität Freiburg, Freiburg, Germany. Prof. H. Grabert. Nov 29, 2001

32. *A new approach to the ground state of many-body systems*, Institutes for Theoretical Physics II – III, Universität Augsburg, Augsburg, Germany. Prof. K. Ziegler. Oct 31, 2000

33. *A new method in the many-body theory of quantum-Hall systems*, Theorie Kolloquium, Fachbereich Physik, Carl von Ossietzky Universität Oldenburg, Oldenburg, Germany. Prof. A. Rauh. Jul 11, 2000

34. *A new approach to the ground state of quantum-Hall systems*, Lehrstuhl Seminar, Universität Regensburg, Regensburg, Germany. Prof. U. Schröder. Jul 06, 2000

35. *A new method in the many-body theory of quantum-Hall systems*, Institute for Theoretical Physics II, University of Augsburg, Augsburg, Germany. Prof. K. Ziegler. Jul 05, 2000

36. *A new approach to the ground state of quantum-Hall systems*, Sektion Physik, Ludwig-Maximilians-Universität München, München, Germany. Prof. J. P. Kotthaus. Jun 05, 2000

37. *A new method in the many-body theory of quantum-Hall systems*, Institut für Technische Physik III, Universität Erlangen-Nürnberg, Erlangen, Germany. Prof. O. Pankratov. May 23, 2000

38. *The generalized Kohn theorem and parametric amplification of electromagnetic waves in low-dimensional electron systems.* Universität Hannover, Hannover, Germany. Prof. R. Haug. Jun 30, 1999

39. *The generalized Kohn theorem and parametric amplification of electromagnetic waves in low-dimensional electron systems.* Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany. Prof. O. K. Andersen. Feb 17, 1999

40. *Low-dimensional electron semiconductor structures as sources of terahertz-wave radiation: Proposal of novel devices.* Universität Regensburg, Regensburg, Germany. Prof. D. Weiss. Dec 10, 1998

41. *Semiconductor sources of submillimeter electromagnetic waves: New ideas and proposals.* Institut für Festkörperelektronik, TU Wien, Austria. Prof. Erich Gornik. Nov 25, 1998

42. *Amplification and generation of submillimeter electromagnetic waves in low-dimensional electron systems: Proposal of novel devices.* Institute of Radioengineering and Electronics, Russian Academy of Sciences, Moscow, Russia. Prof. V. A. Volkov. Jun 30, 1998

43. *Theory of terahertz wave amplification, stimulated by dc electric current, in low-dimensional electron systems.* Sektion Physik, Ludwig-Maximilians-Universität München, München, Germany. Prof. J. P. Kotthaus. Jul 14, 1997

44. *Terahertz wave amplification, stimulated by dc electric current, in grating coupled low-dimensional electron systems.* Universität Regensburg, Regensburg, Germany. Profs. K. F. Renk, D. Weiss. Apr 18, 1997

45. *Far-infrared response and collective excitations in low-dimensional electron systems.* Technische Universität München, Garching, Germany. Prof. F. Koch. Dec 13, 1996

46. *Collective excitations in low-dimensional electron systems.* Naval Research Laboratory, Washington, D.C., USA. Dr. T. L. Reinecke. Oct 17, 1996

47. *Collective excitations in low-dimensional electron systems.* Department of Physics, University of Washington, Seattle, Washington, USA. Prof. D. Thouless. Oct 15, 1996

48. *Collective excitations in low-dimensional electron systems.* Theoretical Physics Institute, School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota, USA. Prof. B. Shklovskii. Oct 10, 1996

49. *Far-infrared response and collective excitations in low-dimensional electron systems.* Department of Physics, Queen's University, Kingston, Ontario, Canada. Prof. E. Zaremba. Oct 09, 1996

50. *Far-infrared response and collective excitations in low-dimensional electron systems.* Department of Physics, Indiana University, Bloomington, Indiana, USA. Prof. A. H. MacDonald. Oct 04, 1996

51. *Far-infrared response and collective excitations in low-dimensional electron systems.* Department of Physics, Boston College, Boston, Massachusetts, USA. Prof. D. Broido. Oct 01, 1996

52. *Far-infrared response and collective excitations in low-dimensional electron systems.* Department of Physics, State University of New York, Stony Brook, New York, USA. Prof. Ph. Allen. Sep 27, 1996

53. *Theory of far-infrared response and collective excitations of a square lattice of antidots.* Max-Planck-Institut für Festkörperforschung Stuttgart, Germany. Prof. K. von Klitzing. May 20, 1996

54. *Plasma waves in solid-state structures. Edge magnetoplasmons in 2D electron gas: The role of edge channels; Plasma waves in a tunnel junction: The role of tunneling time.* Sektion Physik, Ludwig-Maximilians-Universität München, München, Germany. Prof. J. P. Kotthaus. Jan 08, 1996

55. *Edge magnetoplasmons in 2D electron gas: The role of edge channels.* Eindhoven University of Technology, Eindhoven, the Netherlands. Prof. R. W. van der Heijden. Nov 16, 1995

56. *Magnetoplasma excitations in nonuniform 2D electron systems in a strong magnetic field.* Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany. Prof. K. von Klitzing. Sep 20, 1995

57. *Collective excitations in low-dimensional electron systems.* Institut für Theoretische Physik, Universität Regensburg, Regensburg, Germany. Prof. U. Rössler. Nov 1993

58. *Collective excitations in low-dimensional electron systems.* Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany. Prof. K. von Klitzing. Nov 1993

59. *Collective excitations in low-dimensional electron systems.* Sektion Physik, Ludwig-Maximilians-Universität München, München, Germany. Prof. J. P. Kotthaus. Nov 1993

60. *Electrodynamics of two-dimensional electron systems in high magnetic fields.* Institute of Radiophysics and Electronics of the Academy of Sciences, Kharkov, Ukraine. Prof. N. N. Beletskii. 1991

61. *Theory of edge magnetoplasmons.* L.D.Landau Institute for Theoretical Physics, Moscow, Russia. Prof. E. I. Rashba. Dec 1985