CURRICULUM VITAE

Name:	**Gediminas GAIGALAS**	**Date of Birth:**	14 October 1959
Business Address:	Department of Physics Vilnius Pedagogical University Studentu 39, LT-08106 Vilnius, Lithuania email: gaigalas@itpa.lt or VU Research Institute of Theoretical Physics and Astronomy, A. Goštauto 12, LT-01108 Vilnius, Lithuania	**Home Address:**	Papilėnų 5-5 Vilnius 2003, Lithuania
Marital Status:	Married, 2 children	**Nationality:**	Lithuanian

Education and Degrees:

1977-1982 Department of Physics, Vilnius University, Lithuania
Major: theoretical physics, degrees: BA and MA

1982-1989 Institute of Physics, Lithuanian Academy of Sciences
Major: theoretical physics, degrees: Ph.D
under the supervision of Prof. Z.Rudzikas

1989-2001 Institute of Theoretical Physics and Astronomy, Lithuania
Major: theoretical physics, degrees: Habil. Dr.

Employment:

1984-1989 Junior Research Worker of the Institute of Physics, Lithuania

1989-1990 Research Worker of the Institute of Physics, Lithuania

1990-1992 Research Worker of the Institute of Theoretical Physics and Astronomy, Lithuania

1992-2001 Senior Research Worker of the Institute of Theoretical Physics and Astronomy, Lithuania

2001— Chief Research Worker of the Institute of Theoretical Physics and Astronomy, Lithuania

2001— Professor at the Vilnius Pedagogical University

2003— Head of the Chair of General Physics of the Vilnius Pedagogical University

Teaching and lecturing experience:

1997— Lectures for students at the Vilnius Pedagogical University (Department of General Physics) in the field of the Theory of atom and nuclei.

1999— PhD students' supervision at the Vilnius University Research Institute of Theoretical Physics and Astronomy

Didactic Publications:

2003 "Optics Laboratory", training material prepared with co–authors (in Lithuanian).

2004 "Investigation of Ionizing Radiation", training material prepared with co–authors (in Lithuanian).

Participation in Expert Activities:

1991-1993	Scientific secretary of the Lithuanian Physics Society
1997-2002	Member of the Council of ITPA
1997-2002	Member of council of self–analysis Commission of ITPA
2003–	Expert of the Lithuanian Science Council

Extended Research Visits:

1993 (19 May–18 October)	University of Oxford, UNITED KINGDOM Scientific officer: Prof. Ian GRANT
1994 (05 Jan–30 March)	Vanderbilt University Nashville Tennesee 37235, USA Scientific officer: Prof. Ch. F. Fischer
1995 (01 Sep.–30 Dec.)	Universite Libre De Bruxelles BELGIUM Scientific officer: Prof. M.R. Godefroid
1996 (17 Sep.–12 Dec.)	Vanderbilt University Nashville Tennesee 37235, USA Scientific officer: Prof. Ch. F. Fischer
1997 (15 Sep.–15 Dec.)	Vanderbilt University Nashville Tennesee 37235, USA Scientific officer: Prof. Ch. F. Fischer
1999–2000	Kassel University, GERMANY
2002 (04 June–04 Sep.)	Kassel University, GERMANY
2004 (05 July–05 Sep.)	Kassel University, GERMANY

Field of the Research: Atomic Physics (theoretical)

Areas of the Research:

Many body theory of atoms.
Correlation effects in complex atoms and ions.

The Most Significant Results:

An efficient approach for spin–angular integrations in atomic structure calculation was created. It is based on the combination of the angular momentum theory, on the concept of irreducible tensorial sets, on a generalized graphical approach, on the second quantization in a coupled tensorial form, on the quasispin approach, and on the use of reduced coefficients of fractional parentage. All this, in its entity, introduces a number of new features, in comparison with traditional approaches. Based on the development of the above–mentioned methods a software is created for the theoretical studies of many–electron atoms and ions. These are three independent programs (*Racah III*, *ANCO* and *SAI*). The created programs were installed in the computers of different capacity in a number of countries (Vanderbilt University (Computer Science Department, USA), Universite Libre De Bruxelles (Laboratoire de Chimie Physique Moléculaire, Belgium), Universität Kassel (Fachbereich Physik, Germany), Institute of Theoretical Physics and Astronomy (Department of the Theory of an Atom, Lithuania), Vilnius Pedagogical University (General Physics Department, Vilnius), Vilnius Technical University (Computer Department, Vilnius)) and they were, are and will be successfully used to get various characteristics of high accuracy of many–electron atoms and ions. The created methods and programs fully enable us to use both the parallel and symbolic programming as well as the existing resources of supercomputers and personal computers. The calculations performed in the work demonstrate the effectiveness of the methods and programs.

Participation at the Conference:

The results of the research work have been presented at the 3rd International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysics and Fusion (Amsterdam, Netherlands 1990), XXII EGAS Conference (Uppsala, Sweden, 1990), XIII EGAS Conference (Torun, Poland, 1991), 4th EPS Europhysics Conference (Riga, Latvia, 1992), IAU Symposium No. 155 (Innsbruck, Austria, 1992), XXV EGAS Conference (Caen, France, 1993), XXVI EGAS Conference (1994, Barcelona, Spain, 1994), 7th International Conference on the Physics of Highly Charged Ions HCI–94 (Vienna, Austria, 1994), 5th EPS Conference on Atomic and Molecular Physics (Edinburgh, UK, 1995), XXVIII EGAS Conference (Graz, Austria, 1996), 8th International Conference on the Physics of Highly Charged Ions HCI–96

(Omiya, Saitama, JAPAN, 1996), PECAM II Second Europhysics Study Conference on Photon and Electron Collisions with Atomis and Molecules (Belfast, UK, 1996), XXIX EGAS Conference (Berlin, Germany, 1997), Conference on Atomic and Molecular Data and Their Applications (Gaithersburg, MD, USA, 1997), 6th EPS Conference on Atomic and Molecular Physics (Siena, Italy, 1998), 6th International Colloquium on Atomic Spectra and Oscillator Strengths (Victoria, Canada, 1998), 9th International Conference on the Physics of Highly Charged Ions HCI–98 (Bensheim, Germany, 1998), XXXI EGAS Conference (Marseille, France, 1999), Deutschen Physikalischen Gesellschaft (Bonn, Germany, 2000), 7 Kolloquium des Schwerpunktes "Relativische Effekte in der Chemie und physik Schwerer elemente" (Kloster Banz, Germany, 2000), International Conference on Atomic and Molecular Data and Their Applications (Oxford, UK, 2000), ICAP XVII International Conference on Atomic Physics (Florence, Italy, 2000), XXXIII EGAS Conference (Vilnius, Lithuania, 2000), ECAMP VII The Seventh European Conference on Atomic and Molecular Physics (Berlin, Germany, 2001), 12th General Conference of the European Physical Society (Budapest, Hungary, 2002), XXXIV EGAS Conference (Sofia, Bulgaria, 2002), 11th International Conference on the Physics of Highly Charged Ions HCI–02 (Caen, France, 2002), Deutschen Physikalischen Gesellschaft (Hannover, Germany, 2003), XXXV EGAS Conference (Brussel, Belgium, 2003), ICPEAC XVIII International Conference on Photonic Electronic and Atomic Collisions (Stockholm, Sweden, 2003), 8th EPS Europhysics Conference (Rennes, France, 2004), 12th International Conference on the Physics of Highly Charged Ions HCI–04 (Vilnius, Lithuania, 2004).

THE MAIN LIST OF PUBLICATIONS

(a) Refereed Journal Publications

1. **G. Gaigalas, J. Kaniauskas and Z. Rudzikas** Diagrammatic Technique of the Angular Momentum Theory and Second Quantization. Liet. Fiz. Rink. (English transl.–Sov. Phys. Coll.), V.25, 3–13 (1985).

2. **G. Merkelis, G. Gaigalas and Z. Rudzikas** Irreducible Tensorial Form of the Effective Hamiltonian of an Atom and the Diagrammatic Representation in the First Two Orders of the Stationary Perturbation Theory. Liet. Fiz. Rink. (English transl.–Sov. Phys. Coll.), V. 25, 14–31 (1985).

3. **G. Merkelis and G. Gaigalas** Expressions for Reduced Matrix Elements of Non-Relativistic Effective Hamilgtonian of Atom in the First Order of Stationary Perturbation Theory for Configurations with Two Unifilled Shells $n_1 l_1^{N'} n_2 l_2^{N''}$. Spectroscopy of Autoionized States of Atoms and Ions (Moscow, Scientific Council of Spectroscopy, 1985), p. 20–42.

4. **G. Merkelis** Diagrammatic Approach to Irreducible Tensorial Operators And Its Application to Perturbation Theory. Spectroscopy of Autoionized States of Atoms and Ions (Moscow, Scientific Council of Spectroscopy, 1985), p. 43–61.

5. **G. Merkelis, G. Gaigalas, J. Kaniauskas and Z. Rudzikas** Application of the graphical method of the Angular Momentum Theory to the Study of the Stationary Perturbation series. Izvestija AN SSSR, Ser. Fiz., V. 50, 1403–1410 (1986).

6. **G. Gaigalas and G. Merkelis** Calculation Program of Submatrix Elements of Irreducible Tensor Products of the Creation and Destruction Operators. A Collection of Programs on Mathematical Supply of Atomic Calculations, Ed. 17 (Institute of Theoretical Physics of the Academy of Sciences of the Lithuanian SSR, 1986), p. 78–132.

7. **G. Gaigalas and G. Merkelis** Application of the Method of Irreducible Tensorial Operators to Study the Expansion of Stationary Perturbation Theory. Acta Phys. Hungarica, V. 61, No1, 111–114 (1987).

8. **G. Gaigalas and G. Merkelis** Irreducible Tensorial Form of One Particle Operator. VINITI, Academy of Sciences of the Lithuanian SSR, YDK 539.18+530.145, 1–32 (1988).

9. **G. Merkelis, G. Gaigalas** The Graphical Method of Construction and the Calculation of Spin–Angular Parts of Operator's Expansion for Many–Body Perturbation Theory for Atoms with Several Open Shells. Energy Levels and Transition Probabilities in Atoms and Ions (Moscow scientific Council of Spectroscopy, 1989), p. 4–63.

10. **M.–J. Vilkas, G. Gaigalas and G. Merkelis** Calculations of Electron-Electron Correlation Corrections for Energy Levels of Carbon Ioselectronic Sequence of Configurations $1s^22s^22p^2, 1s^22s2p^3$ and $1s^22s^4$ by Multireference MBPT. Liet. Fiz. Rink., V. 31. 142–164 (1991).

11. **M.–J. Vilkas, G. Gaigalas and G. Merkelis** Calculation of Electron Correlations Using the Method of Quasi–Degenerate Stationary Perturbation Theory for Levels of the Configurations $1s^22s^22p^2$, $1s^22s2p^3$ and $1s^22p^4$ of Carbon Isoelectronic Sequence. Lithuanian Journal of Physics, V. 31, 84–97 (1991).

12. **G. Gaigalas, J. Kaniauskas, R. Kisielius, G. Merkelis and M.-J. Vilkas** Second–Order MBPT Results for Oxygen Isoelectronic Sequence. Physica Scripta, Vol.49, 135–147 (1994).

13. **M.-J. Vilkas, G. Merkelis, R. Kisielius, G. Gaigalas, A. Bernotas and Z. Rudzikas** Ab Initio Calculation of E1 Transitions in the Oxygen Isoelectronic Sequence. Physica Scripta, Vol. 49, 592–600 (1994).

14. **G. Merkelis, M.–J. Vilkas, G. Gaigalas and R. Kisielius** MBPT Calculation of energy spectra and E1 Transitions in the Boron Isoelectronic Sequence. Physica Scripta. Vol. 51, 233–251, (1995).

15. **Ch. F. Fischer, A. Ynnerman and G. Gaigalas** Multiconfiguration–Hartree–Fock Calculations for the Electron Affinity of Boron. Physical Review A, Vol. 51, 4611–4616 (1995).

16. **Ch. F. Fischer and G. Gaigalas** The Electron Affinity of $2s2p^2,^4P$ in Boron. J. Phys. B: Atomic, Molecular and Optical Physics. Vol. 29, 1169–1173 (1996).

17. **M.–J. Vilkas, I. Martinson, G. Merkelis, G. Gaigalas and R. Kisielius** Second–Order MBPT Results for the Carbon Isoelectronic Sequence. Physica Scripta, Vol.54, 281–299 (1996).

18. **G. Gaigalas and Z. Rudzikas** On the Socondly Quantized Theory of Many–Electron atom. J. Phys. B: Atomic, Molecular and Optical Physics. Vol. 29, 3303–3318 (1996).

19. **G. Gaigalas and Ch. F. Fischer** Extension of the HF Program to Partially Filled f–subshells. Computer Physics Communications, Vol. 98, 255–264 (1996).

20. **G. Merkelis, M.J. Vilkas, R. Kisielius, G. Gaigalas and I. Martinson** Electric Dipole Transitions in Ions of the N I Isoelectronic Sequence. Physica Scripta, Vol. 56, 41–55 (1997).

21. **Ch. Froese Fischer and G. Gaigalas** Note on the $2s^2\ ^1S_0$–$2s2p\ ^3P_1$ Intercombination Line of BII and CIII. Physica Scripta, Vol.56, 436–438 (1997).

22. **P. Bogdanivich, G. Gaigalas, A. Momkauskaitė and Z. Rudzikas** Accounting for Admixed Configurations in the Second Order of Perturbation Theory for Complex Atoms. Physica Scripta, Vol. 56, 230–239 (1997).

23. **G. Gaigalas, Z. Rudzikas and Ch. Froese Fischer** An efficient approach for spin–angular integrations in atomic structure calculations. J. Phys. B: Atomic, Molecular and Optical Physics. Vol. 30, 3747–3771 (1997).

24. **Ch. F. Fischer, G. Gaigalas and M. Godefroid** The $2s^2\ ^1S_0 - 2s3p\ ^3P_1^0$ intercombination line in the Be– like sequence. J. Phys. B: Atomic, Molecular and Optical Physics. Vol. 30, 3333–3342 (1997).

25. **P. Bogdanovich, G. Gaigalas and Z. Rudzikas** Efficient Method to Account forCorrelation Effects when Generating Atomic Parameters. NIST Special publicatiopn 926, 109–112 (1998).

26. **G. Gaigalas and Z. Rudzikas** Secondly Quantized Multi–Configurational Approach for Atomic Databases. NIST Special publicatiopn 926, 128–131 (1998).

27. **G. Gaigalas, A. Bernotas, Z. Rudzikas and Ch. Froese Fischer** Spin–Other–Orbit Operator in the Tensorial Form of Second Quantization. Physica Scripta, Vol. 57, 207–212 (1998).

28. **M.R. Godefroid, C. Froese Fischer, G. Gaigalas, M. Saparov and P. Jönsson** MCHF and MCHF+BP Atomic Properties of Lithium–Like Ions. Abstracts of Contributed oral papers and poster papers from the Sixth International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas. (Univerity of Victoria, British Columbia, Canada, 1998) 70–73.

29. **Ch. Froese Fischer, M. Saparov, G. Gaigalas and M. Godefroid** Breit-Pauli Energies, Transition Probabilities and Lifetimes for $2s$, $2p$, $3s$, $3p$, $3d$, $4s$ ^2L Levels of the Lithum Sequence, $Z=$ 3–8. Atomic Data and Nuclear Data Tables, Vol. 70, 119–134 (1998).

30. **P. Bogdanovič, G. Gaigalas and A. Momkauskaitė** Accounting for Correlation Corrections to Interconfigurational Matrix Elements. Liet. Fiz. Žur. (English transl.– Lithuanian Journal of Physics) Vol. 38, 443–451 (1998).

31. **G. Gaigalas, Z. Rudzikas and Ch. Froese Fischer** Reduced Coefficients (Subcoefficients of Fractional parentage for $p-$, $d-$ and $f-$ Sells. Atomic Data and Nuclear Data Tables, Vol. 70, 1–39 (1998).

32. **G. Gaigalas, R. Karpuškienė and Z. Rudzikas** Optimal Classification of HCI Spectra. Physica Scripta T80Bi 427–473, (1999).

33. **G. Gaigalas** Integration Over Spin–Angular Variables in Atomic Physics. Lithuanian Journal of Physics, Vol. 39, 79–105 (1999).

34. **A. Audzijonis, A. Krikščiunas, G. Gaigalas and V. Lazauskas** Ab initio investigation of SbSI crystal normal modes. Lithuania Journal of Physics, Vol. 39, 219–225 (1999).

35. **P.O. Bogdanovič, A. Kynienė, R. Karazija, R. Karpuškienė and G. Gaigalas** On the Validity of the Symmetry with Respect to a Quarter of the Shell Taking into Account the Configuration Mixing Effects for the Binding Energy of Electron. Lithuania Journal of Physics, N. 6, 507–510 (1999).

36. **P.O. Bogdanovič, A. Kynienė, R. Karazija, R. Karpuškienė and G. Gaigalas** Additional Symmetry for the Electron Shell in Its Ground State and Many–Electron Efects. The European Physical Journal D, Vol.11, 175–183 (2000).

37. **A. Audzijonis, A. Krikščiunas, R. Bakanas, V. Lazauskas and G. Gaigalas** Theoretical Investigation of Anharmonicity of the SbSI Crystal Soft Mode. Lithuanian Journal of Physics, Vol. 40, 55–57 (2000).

38. **S. Fritzsche, C.Z. Dong, G. Gaigalas** Theoretical Wavelengths and Transition Probabilities from the $3d^9$–$3d^8 4p$ Transition Arrays in NiII. Atomic Data and Nuclear Data Tables, Vol.76, 155–175 (2000).

39. **G. Gaigalas, S. Fritzsche and Z. Rudzikas** Reduced Coefficients of Fractioal Parentage and Matrix Elements of the Tensor $W^{(k_q k_j)}$ in jj–Coupling. Atomic Data and Nuclear Data Tables, Vol. 76, 235–269 (2000).

40. **G. Gaigalas** Some New Simplifications for the General Form of the Orbit–Orbit Interaction. Lithuanian Journal of Physics, Vol. 40, 395–405 (2000).

41. **G. Gaigalas and S. Fritzsche** Calculation of Reduced Coefficients and Matrix Elements in jj–Coupling. Computer Physics Communications, Vol. 134, 86–96 (2001).

42. **G. Gaigalas, S. Fritzsche and B. Fricke** Maple Procedures for the Coupling of Angular Momentum. III. Standard Quantities for Evaluating Many–Particle Matrix Elements. Computer Physics Communications, Vol. 135, 219–237 (2001).

43. **G. Gaigalas** The Library of Subroutines for Calculation Standard Quantities in Atomic Structure Theory. Lithuanian Journal of Physics, Vol. 41, 39–54 (2001).

44. **G. Gaigalas, S. Fritzsche and I.P. Grant** Program to Calculate Pure Angular Momentum Coefficients in jj–coupling. Computer Physics Communications, Vol. 139, 263–278 (2001).

45. **C.Z. Dong, S. Fritzsche, G. Gaigalas, T. Jacob and J.E. Sienkiewicz** Theoretical level Structure and Decay Dynamics of Nickel–like Ions: Search for Laser in the Soft X–ray Domain. Physica Scripta T92, 314–316, (2001).

46. **V. Lazauskas, G. Gaigalas and A. Audzijonis** Theoretical Investigation of Multipole Moments and Polarizabilities of SbSI and SbSBr Crystals. Lithuanian Journal of Physics, Vol. 41, 159–162 (2001).

47. **G. Gaigalas, Z. Rudzikas and T. Žalandauskas** Studies of Er Ionization Energy. Lithuanian Journal of Physics, Vol. 41, 195–199 (2001).

48. **G. Gaigalas, T. Žalandauskas and Z. Rudzikas** Analytical Expressions for Special Cases of $LS-jj$ Transformation Matrices for a Shell of Equivalent Electrons. Lithuanian Journal of Physics, Vol. 41, 226–231 (2001).

49. **G. Gaigalas** The Library of Subroutines for Calculation of Matrix Elements of Two–Particle Operators for Many–Electron Atoms. Lithuanian Journal of Physics, Vol. 42, 73–86 (2002).

50. **S. Fritzsche, B. Fricke, G. Gaigalas, T. Jacob and M. Tomaselli** Fast and Reliable Technique for Using Racah's Algebra in Many–Particle Physics. Computer Physics Communications, Vol. 147, 612–616 (2002).

51. **S. Fritzsche, C. Froese Fischer and G. Gaigalas** RELCI: A Program for Relativistic Configuration Interaction Calculations. Computer Physics Communications, Vol. 148, 103–123 (2002).

52. **G. Gaigalas and S. Fritzsche** Pure Spin–Angular Momentum Coefficients for Non–Scalae One–Particle Operators in jj–coupling. Computer Physics Communications, Vol. 148, 349–351 (2002).

53. **G. Gaigalas and S. Fritzsche** Maple procedures for the Coupling of Angular Momenta. VI. $LS-jj$ Transformations. Computer Physics Communications, Vol. 149, 39–60 (2002).

54. **A. Audzijonis, G. Gaigalas, V. Lazauskas, L. Žigas, J. Narušis and A. Pauliukas** Electron–Phonon Onteraction in the SbSI Atomic Chain. Lithuanian Journal of Physics, Vol. 42, 421–425 (2002).

55. **T. Žalandauskas and G. Gaigalas** Routine for Transformation of Atomic State Functions from $LS-$ to $jj-$Coupled Basis. Lithuanian Journal of Physics, Vol. 43, 15–26 (2003).

56. **G. Gaigalas, T. Žalandauskas and Z. Rudzikas** $LS-jj$ Transformation Matrices for a Shell of Equivalent Electrons. Atomic Data and Nuclear Data Tables, Vol. 84, 99–190 (2003).

57. **G. Gaigalas, T. Žalandauskas and S. Fritzsche** Spectroscopic LSJ Notation for Atomic Levels Obtained from Relativistic Calculations. Computer Physics Communications, Vol. 157, 239–253 (2004).

58. **A. Audzijonis, G. Gaigalas, V. Lazauskas, L. Žigas, J. Narušis and A. Pauliukas** Electron-Phonon Interaction and Jahn–Teller Effect in the SbSI Atomic Chain. Physica B, Vol. 351, 27–34 (2004).

59. **G. Gaigalas, Z. Rudzikas and O. Scharf** Hyperfine Structure Operator in the Tensorial Form of Second Quantization. Central European Journal of Physics Vol. 4, 720–736 (2004).

60. **G. Gaigalas, O. Scharf and Z. Rudzikas** Maple Procedures for the Coupling of Angular Momenta. VIII. Spin–Angular Coefficients for Single–Shell Configurations. Computer Physics Communications, (accepted).

(b) Conference Presentations

1. **G. Gaigalas and G. Merkelis** Application of the Method of Irreducible Tensorial Operators to Study the Expansion of Stationary Perturbation Theory. Conference of Spectroscopy Committees of Socialist Countries, 31 August–5 September, **1986**, Balatonszeplak–Felso, Hungary.

2. **G. Gaigalas, G. Merkelis, M.–J. Vilkas and Z. Rudzikas** Application to the many–body perturbation theory to the calculation of the energy spectra of the configurations $1s^2 2s^2 2p^2$ and $1s^2 2p^4$. Book of Abstracts of 3rd European Conference on Atomic and Molecular Physics, April 3–7, **1989**, Bordeaux, France (Ed. by A. Salin), p. 61.

3. **M.–J. Vilkas, G. Gaigalas, G. Merkelis and Z. Rudzikas** Application of many–body perturbation theory to the investigation of energy spectra of atoms and ions with open shells. Proceedings of the 3rd International Colloquiuum on Atomic Spectra and Oscillator Strengths for Astrophysics and Fusion, 28–31 August, **1990**, Amsterdam, Netherlands (Ed. by J.E. Hansen), p. 132.

4. **G. Merkelis, G. Gaigalas and M.–J. Vilkas** Multireference MBPT calculation of energy levels along the carbon sequance. Book of Abstracts of XXII EGAS Conference, 10–13 July, **1990**, Uppsala, Sweden (Ed. by A. Wannstrom), p. 374.

5. **G. Gaigalas, M.-J. Vilkas, A. Bernotas and G. Merkelis** Program to calculate energy spectra of open–shell by the MBPT mothods. Book of Abstracts of XXIII EGAS Conference, **1991**, Torun, Poland (Ed. by S. Lengowski, Z. Rudzikas), p. 61.

6. **G. Gaigalas, R. Kisielius, G. Merkelis and M.–J. Vilkas** Second-oder MBPT results for oxygen isoelectronic sequence. Book of Abstracts of 4yh EPS Europhysics Conference, 6–10 April, **1992**, Ryga, Latvija (Ed. by K. Bethge), p. 88.

7. **G. Gaigalas, R. Kisielius, G. Merkelis and M.–J. Vilkas** Calculation of energy spectra and transition probabilities for magnesium like ions using MBPT in the complete model space. Book of Abstracts of 4yh EPS Europhysics Conference, 6–10 April, **1992**, Ryga, Latvija (Ed. by K. Bethge), p. 89.

8. **G. Gaigalas, R. Kisielius, G. Merkelis and M.–J. Vilkas** E2 and M1 transition probabilities in ions of the nitrogen isoelectronic sequence calculated using MBPT. Book of Abstracts of Symposium 155 Planetary Nebulae, 13–17 July, **1992**, Insburk, Austria, p. 13.

9. **G. Gaigalas, R. Kisielius, G. Merkelis, Z. Rudzikas and M.–J. Vilkas** MBPT results for Δn=0 electronic dipole transitions. Book of Abstracts of Symposium 155 Planetary Nebulae, 13–17 July, **1992**, Insburk, Austria, p. 14.

10. **M. Vilkas, R. Kisielius, G. Merkelis and G. Gaigalas** AB initio estimation of the correlation corection for n=3 complex ions. Book of Abstracts of XXV EGAS Conference, 13–16 July, **1993**, Caen, France (Ed. by K. Bethge), p. 21.

11. **G. Merkelis, M. Vilkas, G. Gaigalas and R. Kisielius** Second order MBPT results for boron and fluorine isoelectronic sequemce. Book of Abstracts of XXV EGAS Conference, 13–16 July, **1993**, Caen, France (Ed. by K. Bethge), p. 22.

12. **R. Kisielius, G. Gaigalas, G. Merkelis and M. Vilkas** Correlation effects for radiative transitions in carbon isoelectronic sequence. Book of Abstracts of XXV EGAS Conference, 13–16 July, **1993**, Caen, France (Ed. by K. Bethge), p. 23.

13. **G. Merkelis, M. Vilkas, R. Kisielius and G. Gaigalas** Second–order MBPT calculation of the energy spectra and E1 transitions in Si–like sequence. Book of Abstracts of XXVI EGAS Conference, 12–15 July, **1994**, Barcelona, Spain (Ed. by R. Pick), p. 192.

14. **Z. Rudzikas, G. Merkelis, M. Vilkas, R. Kisielius and G. Gaigalas** Theortical Studies of Structure and Spectra of Complex Highly Charged Ionsuence. Book of Abstracts of 7th International Conference on the Physics of Highly Charged Ions HCI–94 19–23 September, **1994**, Vienna, Austria (Ed. by F. Aumayr and HP. Winter), p. Mo11.

15. **G. Gaigalas, Z. Rudzikas and C. Froese Fischer** Efficient Methods for Angular Integrations in Large–Scale Atomic Structure Calculations. Book of Abstracts of 5th EPS Conference on Atomic and Molecular Physics, 3–7 April, **1995**, Edinburgh, UK (Ed. by R.C. Thompson), p. 84.

16. **G. Merkelis, M. J. Vilkas, R. Kisielius and G. Gaigalas** Treatment of the Correlation Correction for the n=2 Complex Ions by Using the Second–Order perturbation Theory with HF Orbital Basis Set. Book of Abstracts of 5th EPS Conference on Atomic and Molecular Physics, 3–7 April, **1995**, Edinburgh, UK (Ed. by R.C. Thompson), p. 251.

17. **G. Gaigalas, A. Bernotas and Z. Rudzikas** Relativistic Corrections to Atomic Electron Interactions in Second Quantization. Irreducible tensorial Forms of Spin–Other–orbit Interaction Operator. Book of Abstracts of XXVIII EGAS Conference, 16–19 July, **1996**, Graz, Austria (Ed. by L. Windholz), p. 33.

18. **P. Bogdanovich, G. Gaigalas, A. Momkauskaite and Z. Rudzikas** Method of Simplified Accounting for Admixed Configurations. Book of Abstracts of XXVIII EGAS Conference, 16–19 July, **1996**, Graz, Austria (Ed. by L. Windholz), p. 63.

19. **G. Gaigalas, A. Bernotas and Z. Rudzikas** Further Development of Efficient Spin–Angular Integration Methodics: Applications to Full Spin–Orbit Integration. Book of Abstracts of PECAM II, 23–26 July, **1996**, Belfast, UK, p. 83.

20. **Z. Rudzikas, P. Bogdanovich, G. Gaigalas and A. Momkauskaite** Simplified Accounting for Admixed Configurations. Book of Abstracts of Eighth International Conference on the Physics of Highly Charged Ions,23–26 September, **1996**, Omiya, Saitama, JAPAN, p. 116.

21. **G. Gaigalas and Z. Rudzikas** Reduced Coefficients of Fractional Parentage for $f-$ Shells. Book of Abstracts of XXIX EGAS Conference, 15-18 July, **1997**, Berlin, Germany (Ed. by H.–D. Kronfeldt), p. 26.

22. **G. Gaigalas and C. Froese Fischer** The GBREIT Program for Partially Filled $f-$ Subshells. Book of Abstracts of XXIX EGAS Conference, 15–18 July, **1997**, Berlin, Germany (Ed. by H.–D. Kronfeldt), p. 487.

23. **G. Gaigalas, and Z. Rudzikas** Secondly Quantized Multi–configurational Approach for Atomic databases. Book of Abstracts of Conference on Atomic and Molecular Data and Their Applications, September 29 – October 2, **1997**, Gaithersburg, MD, USA, p. 42.

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