

CURRICULUM VITAE

Stepan Douplii

PERSONAL INFORMATION

Passport name: **Stepan Douplii**

Pen/scientific name: **Steven Duplij**

Cyrillic name: **СТЕПАН АНАТОЛЬЕВИЧ ДУПЛИЙ**

Office address:

Mathematisches Institut
Westfälische Wilhelms-Universität Münster
Einsteinstrasse 62
48149 Münster
Germany

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Kolde Ring 60
48151 Münster
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Web pages: **http://wwwmath.uni-muenster.de/persdb/show_perspage.php?id=1011**
<http://wwwmath.uni-muenster.de/u/duplij>
<http://homepages.spa.umn.edu/~duplij>
<http://www.math.rutgers.edu/~duplij>

DEGREES

2002 The academic status of Senior Research Fellow is given by Higher Certifying Commission, Kiev, Ukraine

1999 Habilitation Thesis: "*Semigroup Methods in Supersymmetric Theories of Elementary Particles*", Bogolyubov Institute of Theoretical Physics, Kiev, Ukraine,
Doctor Habilitatus in Theoretical Physics
(Doctor of Science in Physics and Mathematics)

1983 Ph.D. Thesis: "*Theoretical Investigation of Hard Processes in QCD*";

1978-1982 Post Graduate Course in Theoretical Physics, Kharkov State University;
PhD (Candidate of Science in Physics and Mathematics); adviser M.P. Rekalov

All docs and transcripts in PDF are available here: <http://webusers.physics.umn.edu/~duplij/job>

EDUCATION

1994-1995 Special German Language Course, Goethe Institute, Mannheim, Germany;
Distinguished diploma.

1974-1978 Department of Theoretical Physics, Kharkov State University;
The Distinguished Diploma in Theoretical Nuclear Physics - M.Sc.

1973-1976 Special English Language Course, Kharkov State University;
The Distinguished Diploma.

1973-1974 Department of Theoretical Radiophysics, Kharkov State University.

WORK EXPERIENCE

- 2014-now** Scientific Researcher at the Mathematisches Institut, Universität Münster, Münster, Germany
- 2000-2014** Lead Senior Staff Researcher at the Nuclear Physics Laboratory, Kharkov National University, Kharkov, Ukraine
- 2000-now** CMS collaboration, CERN, Geneva
- 1997-2000** Senior Staff Researcher at the Nuclear Physics Laboratory, Kharkov National University, Kharkov, Ukraine
- 1983-1997** Staff Researcher at the Nuclear Physics Laboratory, Kharkov State University, Kharkov, Ukraine
- 1992-1993** Staff Researcher at the Astronomic Observatory, Kharkov State University, Kharkov, Ukraine
- 1983-1992** Staff Researcher at the Nuclear Physics Laboratory, Kharkov State University, Kharkov, Ukraine
- 1978-1983** Half-time Researcher at the Radiophysics Laboratory, Kharkov State University, Kharkov, Ukraine

FELLOWSHIPS & GRANTS

- 2011-2012** Fulbright Scholar Program at the Rutgers University, Piscataway, USA (Host: G. A. Goldin)
- 2007** April-June American Physical Society Travel Grant
- 1994-1997** Alexander von Humboldt Fellowship at the Physics Department, University of Kaiserslautern, Kaiserslautern, Germany (Host: W. Rühl)

EDITOR EXPERIENCE

- 1999-now** Editor of *Kharkov National University Journal* (Vestnik KSU), ser. Nuclei, Particles and Fields

Editor-compiler:

- S. Duplij, W. Siegel, J. Bagger** (Eds.) "*Concise Encyclopedia of Supersymmetry and Noncommutative Structures in Mathematics and Physics*"
Dordrecht-Boston-London: Kluwer Academic Publishers, 2004, 561 pp.
(Second printing Springer Science, Berlin-Heidelberg-New York, April 2005).
- S. Duplij, J. Wess** (Eds.) "*Noncommutative Structures in Mathematics and Physics*",
Dordrecht-Boston-London: Kluwer Academic Publishers, 2001, 484 pp.
- S. Duplij, V. Zima** (Eds.) "*Supersymmetric Structures in Mathematics and Physics*",
Kiev, UkrINTI, 2000, 262 pp.

Reviewing:

- 1998-now** Reviewer of *Zentralblatt Mathematik*, Karlsruhe-Berlin, Germany
- 2005-now** Reviewer of *Journal of Zhejiang University, Science*, Hangzhou, China
- 2007-now** Reviewer of *Journal of Mathematical Physics*, AIP, USA
- 2010-now** Reviewer of *Reports of Mathematical Physics*, Warsaw, Poland

LECTURE COURSES

Calculus
Elementary Particle Physics
Quantum chromodynamics
Unified theories
Supersymmetry and supergravity

SUPERVISION

5 students received Distinguished M.Sc. Degree in Theoretical Physics
4 PhD students, 1 PhD defended

PROFESSIONAL MEMBERSHIPS

2014 RUSSIAN UNION OF WRITERS (Moscow, Russia)
2008 AMERICAN PHYSICAL SOCIETY (College Park, MD)
2002 ALEXANDER VON HUMBOLDT CLUB Ukraine
1995 AMERICAN MATHEMATICAL SOCIETY (Providence, NJ)
1994 INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS
(Cambridge, MA)
1993 ENGLISH INTERNATIONAL ASSOCIATION (Lund, Sweden)
1993 AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
(Washington, DC)
1992 EUROPEAN PHYSICAL SOCIETY (Geneva, Switzerland)
1999 INTERNATIONAL MATHEMATICAL UNION (IAS, Princeton)

LISTED

WORLD DIRECTORY OF MATHEMATICIANS
MARQUES WHO IS WHO IN THE AMERICA 2014
ENCYCLOPEDIA OF MODERN UKRAINE
MATHEMATICAL PORTAL Math-Net
GOOGLE SCHOLAR
MICROSOFT ACADEMICS

CONFERENCE ORGANIZING

2005 June-International Workshop "*Pseudo-Hermitian Hamiltonians in Quantum Physics*" as a member of Advisory Board
2000 September-NATO Advanced Research Workshop "*Noncommutative Structures in Mathematics and Physics*" as a Partner Country Co-Director
(NATO Co-Director: Julius Wess)

CONFERENCE PARTICIPATION

Participated at numerous international conferences, workshops, schools and seminars in USA, Germany, France, UK, Poland, Spain, Czech Republic, Russia, China, Ukraine.
2014 May Workshop "QUANTUM GROUPS AND OPERATOR ALGEBRAS"
(Münster, Germany)
2011 August 3rd International Conference QUANTUM ELECTRODYNAMICS AND STATISTICAL PHYSICS (Kharkov, Ukraine)

2010 June 26th Workshop "FOUNDATIONS AND CONSTRUCTIVE ASPECTS OF QFT" (Münster, Germany)
2010 May ANALYTIC AND ALGEBRAIC METHODS IN PHYSICS VI (Prague, Czech Republic)
2009 October ALGEBRA, GEOMETRY, AND MATHEMATICAL PHYSICS (Bedlewo, Poland)
2009 September THE FOURTH INTERNATIONAL CONFERENCE ON P-ADIC MATHEMATICAL PHYSICS (Hrodna, Belarus)
2009 June SYMMETRY IN NONLINEAR MATHEMATICAL PHYSICS (Kiev, Ukraine)
2009 May ANALYTIC AND ALGEBRAIC METHODS V (Prague, Czech Republic)
2008 December 100th STATISTICAL MECHANICS CONFERENCE (Rutgers, USA)
2008 July SUMMER SCHOOL AND CONFERENCE ON MODERN MATHEMATICAL PHYSICS (Belgrade, Serbia)
2007 May 97th STATISTICAL MECHANICS CONFERENCE (Rutgers, USA)
2004 July-August SIMONS WORKSHOP IN MATHEMATICS AND PHYSICS (Stony Brook, USA)
2001 July XV Max Born Symposium SCHROEDINGER OPERATORS, RANDOM POTENTIALS AND SINGULAR PERTURBATIONS (Wroclaw, Poland)
2000 July INTERNATIONAL CONFERENCE ON SUPERSYMMETRY AND QUANTUM FIELD THEORY 75th Birthday of D. V. Volkov (Kharkov, Ukraine)
1999 July INTERNATIONAL CONFERENCE ON SUPERSYMMETRY AND QUANTUM SYMMETRIES in the memory of V. I. Ogievetsky (Dubna, Russia)
1999 July INTERNATIONAL CONFERENCE STRINGS-99 (Potsdam, Germany)
1999 August INTERNATIONAL CONFERENCE ON QUANTUM GRAVITY AND SUPERSTRINGS (Dubna, Russia)
1998 August INTERNATIONAL CONGRESS OF MATHEMATICIANS (Berlin, Germany)
1997 January INTERNATIONAL SEMINAR ON SUPERSYMMETRY AND QUANTUM FIELD THEORY in memory of D. V. Volkov (Kharkov, Ukraine)
1997 July INTERNATIONAL CONFERENCE ON SUPERSYMMETRY AND QUANTUM SYMMETRIES dedicated to the memory of V. I. Ogievetsky (Dubna, Russia)
1997 August INTERNATIONAL CONFERENCE ON SYMMETRY METHODS IN PHYSICS (Dubna, Russia)
1997 August INTERNATIONAL ALGEBRAIC CONFERENCE dedicated to the memory of L. M. Gluskin (Slavyansk, Ukraine)
1996 June SUPERSYMMETRY-96 (College Park, MD)
1996 June INTERNATIONAL CONFERENCE ON HIGHER HOMOTOPY STRUCTURES IN MATHEMATICAL PHYSICS (Poughkeepsie, NY)
1995 June CRACOW SCHOOL OF THEORETICAL PHYSICS (Zakopane, Poland)
1995 July INTERNATIONAL CONFERENCE ON GAUGE THEORIES, APPLIED SUPERSYMMETRY AND QUANTUM GRAVITY (Leuven, Belgium)
1995 July EUROPEAN SCHOOL OF GROUP THEORY (Valladolid, Spain)
1994 July INTERNATIONAL CONGRESS ON MATHEMATICAL PHYSICS (Paris)
1993 June INTERNATIONAL SCHOOL ON THEORETICAL AND MATHEMATICAL PHYSICS (Saint-Francois, Guadeloupe)

VISITS & TALKS (outside FSU)

2014

Münster, Germany (Inst. Math.)-*J. Cuntz, W. Werner, R. Wulkenhaar*

2012

Hangzhou, China (Zhejiang Univ.)-*Fang Li*

Davis, USA (UC, Math. Dept.)-*M. Mulase, A. Schwarz*

Riverside, USA (UC, Math. Dept.)-*M. Lapidus*

Honolulu, USA (Univ. Hawaii, Phys. Dept.)-*X. Tata*

Syracuse, USA (Univ. Syracuse, Phys. Dept.)-*K. Wali*

Medford, USA (Tufts Univ., Inst. Cosmology)-*A. Vilenkin*

Boston, USA (NEU, Math. Dept.)-*A. Martsinkovsky*

2011

Chicago, USA (UIC, Math. Dept.)-*L. Kauffman*

Minneapolis, USA (Univ. Minnesota, Phys. Dept.)-*M. Shifman*

Philadelphia, USA (UPenn, Math. Dept.)-*J. Stasheff*

Piscataway, USA (Rutgers, Math. Dept.)-*G.A. Goldin*

Argonne, USA (ANL, HEP Division)-*C. Zachos*

New York, USA (CUNY Graduate Center, Math. Dept.)-*A. Douglas*

2010

Münster, Germany (Inst. Math.)-*J. Cuntz, W. Werner,*

Heidelberg, Germany (Inst. Theor. Phys.)-*G. Wolschin, J. Kupsch,*

Wien, Austria (ESI, Univ.)-*H. Grosse,*

Prague, Czech. Rep. (Inst. Nucl. Phys., Rez)-*M. Znojil,*

Wien, Austria (Inst. Theor. Phys., TUW)-*D. Grumiller,*

Padova, Italy (Inst. Nucl. Phys.)-*M. Tonin,*

Naples, Italy (Inst. Phys.)-*G. Esposito,*

Florence, Italy (Inst. Nucl. Phys.)-*R. Casalbuoni, L. Lusanna,*

Rome, Italy (Inst. Theor. Phys.)-*M. Bianchi*

2009

Warsaw, Poland (Inst. Math.)-*S. Woronowicz, P. Urbanski,*

Lodz, Poland (Univ.)-*B. Broda,*

Wroclaw, Poland (Inst. Theor. Phys., IFT)-*J. Lukierski,*

Zielona Gora, Poland (Inst. Phys., IF)-*M. Dudek,*

Szczecin, Poland (Inst. Phys., IF)-*M. Dabrowski,*

Krakow, Poland (Inst. Phys., IF)-*H. Arodz,*

Prague, Czech. Rep. (Inst. Math.)-*B. Burgstaller*

Potsdam, Germany (AEI)

Dresden, Germany (Forschungszentrum Dresden-Rossendorf)-*U. Günther*

2008

Piscataway, USA (Rutgers Univ.)-*G. Goldin,*

Medford, USA (Tufts Univ.)-*A. Vilenkin,*

Cambridge, USA (MIT)-*E. Lomon,*

New York, USA (CUNY)-*S. Catto,*

Köln, Germany (Inst. Theor. Phys.)-*M. Zirnbauer,*

Belgrade, Serbia (Inst. Phys., IF)-*B. Dragovich,*

Nic, Serbia (Inst. Phys.)-*M. Ciric,*

Trieste, Italy (SISSA)-*L. Bonora,* Bielefeld, Germany (Univ.)-*C. Ringel,*

Bonn, Germany (Phys. Inst.)-*V. Rittenberg*

2007

Princeton, USA (Inst.Adv.Study)-*S. Adler*,

Chicago, USA (Univ.Illinois,UIC)-*L. Kauffman*,

Medford, USA (Tufts Univ.)-*A. Vilenkin*,

Cambridge, USA (MIT)-*E. Lomon*,

Baltimore, USA (John Hopkins Univ.)-*J. Bagger*,

Philadelphia, USA (Univ. Penn.)-*J. Stasheff*

2006

Münster, Germany (Inst. Math.)-*J. Cuntz*,

Bielefeld, Germany (Univ.)-*C. Ringel*

2004

Princeton, USA (Inst. Adv. Study)-*S. Adler*,

Baltimore, USA (John Hopkins Univ.)-*J. Bagger*,

Stony Brook, USA (SUNY, YITP)-*W. Siegel*,

Minneapolis, USA (Inst. Theor. Phys.,FTPI-UMN)-*M. Shifman*,

Krakow, Poland (Jagellonian Univ.)

2003

Wroclaw, Poland (Inst. Theor. Phys.,IFT)-*W. Marcinek, J. Lukierski*

2001

Göttingen, Germany (ISF)-*F.Müller-Hoissen*,

Hangzhou, China (Zhejiang Univ.)-*F. Li*,

Shanghai, China (Inst. Phys.)-*Y.-L. Xu*,

Wroclaw, Poland (Inst. Theor. Phys., IFT)-*W. Marcinek, J. Lukierski*

Prague, Czech. Rep. (CTU)-*C. Burdik*

Rez, Czech. Rep. (Inst. Nucl. Phys.,NPI)-*M. Znojil*,

Mannheim, Germany (Univ.)-*M.Schlichenmaier*

2000

Warsaw, Poland (Inst. Math.)-*J. Okninski*,

Wroclaw, Poland (Inst. Theor. Phys., IFT) -*W. Marcinek, J. Lukierski*

1999 Potsdam, Germany (AI)

1998 Berlin, Germany (HMI)-*W. Von Oertzen*,

Berlin, Germany (Tech. Univ.),

Krakow, Poland (Inst. Nucl. Phys.)

1994-1996

Kaiserslautern, Germany (Univ.)-*W.Rühl*

1994

St.Andrews, UK (Univ.)-*J. Howie*

Orsay, France (Inst. Nucl. Phys.)-*A. Comtet*

1993

München, Germany (Max-Planck-Inst. für Physik)-*J.Wess*,

Lyon, France (Inst. Phys.)

Kaiserslautern, Germany (Univ.)-*W.Rühl*

PUBLICATIONS

More than 100 articles and reports including *Journal of Physics*, *Communications in Mathematical Physics*, *Journal of Mathematical Physics*, *Communications in Algebra*,

Semigroup Forum, Letters in Mathematical Physics, Theoretical and Mathematical Physics; Journal of Lie Theory, International Journal of Geometric Methods in Modern Physics, Linear Algebra and Applications (full list is on the homepage and arxiv.org).
Monograph: S. Duplij "Semisupermanifolds and semigroups", Kharkov: Krok, 2000, 220pp. (Second Print by CreateSpace Pubs.: Charleston, 2013, available from Amazon).

RESEARCH INTERESTS

Supersymmetry and semigroups; supermatrix models; superconformal symmetry; super Riemann surfaces; supermanifolds; supersymmetric quantum mechanics; supergravity.

Quantum groups and supergroups; Hopf algebras and Yang-Baxter equation; representations of quantized algebras, polyadic algebras and groups, Cuntz algebras.

Nonlinear methods in (super)electrodynamics, Yang-Mills, gravity and multigravity.

Constrained systems and gauge theories, application of differential equations.

Secondary:

Symmetries of genetic code and DNA sequences; Helicity formalism in quantum chromodynamics; Polarization phenomena in low energy nuclear physics; Rutherford backscattering method in ion implantation; Nonstationary radio noise.

SPECIAL SKILLS

Languages: English (perfect), German (speaking), Russian (native), Ukrainian (native).

Programming: Perl, Mathematica, Maple, LaTeX, BibTeX, HTML

PC platforms: MS-DOS, Windows XP, Windows 2003, Windows Vista, Unix, Linux

PC software: Scientific Work Place, dBase, Adobe products, Microsoft Excel, Word, Photoshop, Dreamweaver, PowerPoint

MASS MEDIA & SOCIAL LIFE

TV programs and interviews at the Kharkov TV studios (regularly)

Scientific program "Logos" (regular interviews at the Central Kharkov radio station)

Articles about me: in USA (SCOOP USA, Gazette, Library of Congress); in Germany, in Ukrainian press (regularly)

AvH Fellows meetings/workshops at the German Embassy in Ukraine, Kiev (regularly)

ADDITIONAL PERSONAL INFORMATION

Date and place of birth: August 29, 1954, Chernyshevsk, Russia.

Citizenship: Ukraine.

LITERARY & MUSICAL ACTIVITY

Writing poetry and short stories

More than 200 publications in USA/UK professional literary magazines (in English).

Poetry books - including

IN CRY (Mitez, Kharkov, 1996) bilingual English/Russian

ANGEL (1996), ALIEN (1995), DREAM (1994) (in English);

REFLEXOES 1993 (in Portuguese)

DASH-DOTTED (Cambridge, MA, 2012) bilingual English/Russian poetry (available from Amazon).

SUPERMANIFOLD OF LIFE (Cambridge, MA, 2014) multilingual poetry and short prose in 9 languages (available from Amazon).

Playing guitar and composing songs

CD albums of songs: BLITZ (Heidelberg, 1995), MOTIFS OF YEARS (Heidelberg, 1996), SUPERMANIFOLD OF LIFE (Houston, 2007)

MC album of songs: BLITZ (GEMA, Berlin, 1996)

CD album of poems (read professionally by T. Kudryashova, in English): SUPERMANIFOLD OF LIFE (2004).

Live art performances

1994 July INTERNATIONAL CONGRESS OF ARTS AND COMMUNICATIONS (Edinburgh, UK) — poetry reading in English

1994 December SMALL PRESS BOOK FAIR (New York, NY) — poetry reading in English and Russian

1994 December PenRose PUBLISHING Co. (Mystic Island, NJ) — poetry reading in English and Russian

1995 July University of Valladolid Residence (Valladolid, Spain) — poetry reading with own songs to the guitar in English and Russian

1995 July LA CLAVE MUSIC AND POETRY CLUB (Madrid, Spain) — poetry reading with own songs to the guitar in English and Russian with Spanish translation

1995 August SYMPOSIUM OF INTERNATIONAL SOCIETY OF POETS (Washington, D.C.) — poetry reading and performance of literary works

1995 August RAVEN POETRY CLUB (Baltimore, MD) — poetry reading in English

1995 August SECOND CHURCH OF PONCE (Ponce, Puerto Rico) — poetry reading with own songs to the guitar in English and Russian with Spanish translation

1995 August THE LIBRARY OF CONGRESS (Washington, D.C.) — poetry reading with own songs to the guitar (in English and Russian) at the special Russian Table

1995 August ROCK CREEK GALLERY (Washington, D.C.) — poetry reading with own songs to the guitar in English and Russian

1996 June WASHINGTON POETS WORKSHOP'S annual reading (Reston Community Center, Washington, DC) — poetry reading and songs to the guitar in English and Russian

1996 June ALBANY POETRY CLUB (Albany, NY) — poetry reading and songs to the guitar in English and Russian

1996 June MARY PICKFORD THEATER at THE LIBRARY OF CONGRESS (Washington, DC) — poetry reading and songs to the guitar in English and Russian

1996 June RAVEN POETRY CLUB (Baltimore, MD) — songs to the guitar in English

1996 December FEUDENHEIM HARMONIKA CLUB (Mannheim, Germany) — songs to the guitar in Russian

1999 May Kharkov State University (Kharkov, Ukraine) — poetry reading and songs to the guitar in English and Russian

2003 May LITERARY CLUB (Wroclaw University, Poland) — poetry reading in English and Russian

2007 May MINDPUDDLES GALLERY (Houston, TX) — poetry reading and songs to the guitar in English and Russian

2007 May BOWERY POETRY CLUB (New York, NY) — poetry in English and Russian

HOBBIES

Collecting music: classical, sympho-rock, electro-tango, piano/(classical) guitar, jazz.

Collecting books: deep emotional poetry and short prose in Russian and English.

In addition: bicycle, MIDI, volleyball, tennis, rollers.