

SVETLANA PACHEVA
Curriculum Vita

Work Address

Institute of Nuclear Research
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BIRTH: December 23, 1949, in Rousse, Bulgaria
MARITAL STATUS: married, one child
LANGUAGES: Bulgarian – mother tongue; Russian, English – free;
Hebrew – fair; German - mediocre

Education STEKLOV MATHEMATICAL INSTITUTE St. Petersburg, Russia
1976-1979

Ph.D. graduate student. Ph.D. degree in Theor. Physics - 1979; supervisors: Prof. L.D. Faddeev and Prof. P.P. Kulish. Ph.D. Thesis (1979): “*1/N Expansion and Critical Behaviour of Three-Dimensional Field Theory Models*”

SOFIA UNIVERSITY Sofia, Bulgaria
1968-1973

Undergraduate and M.S. studies. M.S. degree in Physics - 1973 ; supervisor: Prof. I.T. Todorov

Field of Research

Theoretical and Mathematical Physics, Theory of Elementary Particles, High Energy Physics, General Relativity and Gravitation

Research Interests

Generalized gravity and nonlinear gauge theories, generalized string and p -brane models (strings/branes with dynamical tension, lightlike branes) – with applications in elementary particle physics, black hole and wormhole physics, and cosmology; Completely integrable models; Quantum groups and Hopf algebras - applications in physics; Group-theoretical approach to conformal field theories based on the method of group coadjoint orbits; Covariant quantization of strings with manifest space-time supersymmetry; Covariant quantization of constrained systems ; Stochastic quantization ; Non-perturbative aspects of gauge theories - renormalization of non-renormalizable theories, anomalies in odd dimensions, dynamical mass generation, dynamical generation of gauge bosons and Chern-Simmons terms, $1/N$ expansion, dynamical symmetry breaking; Field-theoretic approach in the theory of phase transitions and critical behaviour.

Publications

Total number (as of Nov 2018) – 138;
Phys. Lett. B – 27; *Phys. Lett. A* – 3; *Nucl. Phys. B* – 4; *Comm. Math. Phys.*

– 2; *Mod. Phys. Lett. A* – 5; *Int. Journ. Mod. Phys. A* – 8; *Int. Journ. Mod. Phys. D* – 1; *Journ. Math. Phys.* – 2; *Phys. Rev. D* – 2; *Gen. Rel. Grav.* – 2; *Theor. Math. Phys.* – 4; *Lett. Math. Phys.* – 9; *EuroPhys. Journ. B* – 1; *EuroPhys. Journ. C* – 2; *Fortschritte der Physik* – 2; *Centr.Europ.J.Phys.* – 1; *Astronom. Nachrichten* – 1; *Appl. Analysis* – 1; *Invertis Journal of Sci. and Technology* – 1; *The Open Nuclear and Particle Physics Journal* – 1; *Bulg. Journ. Phys.* – 15; *Comp. Rend. Acad. Sci. Bulg.* – 2; *Proceedings of International Conferences* (full text contributions) – 38; *Preprints* – 6

Citations and Impact Factor

Total number of independent citations (as of Dec 2018) – 1276

H-index: 21

Total Impact Factor: 268.613

Google Scholar profile:

http://scholar.google.bg/citations?hl=en&user=vnLVF-kAAAAJ&view_op=list_works&pagesize=100

Employment	<p>INSTITUTE OF NUCLEAR RESEACH 1989–present Sofia, Bulgaria</p> <p>Full Professor (since 2008); Doctor of Sciences (Doctor Habil.) (2007); Senior research staff member (equiv. to Associate professor) (1989–2007)</p> <p>INSTITUTE OF NUCLEAR RESEACH 1980–1989 Sofia, Bulgaria</p> <p>Research staff member (equiv. to Assistant professor)</p> <p>INSTITUTE OF SOLID STATE PHYS. 1974–1976 Sofia, Bulgaria</p> <p>Junior research member</p> <p>BEN-GURION UNIVERSITY OF THE NEGEV 1991–1994, 1995–1999 Beer Sheva, Israel</p> <p>Visiting professor and research staff member; “Giladi” fellowship 1996–1999</p> <p>HEBREW UNIVERSITY Feb 1991 – July 1991 Jerusalem, Israel</p> <p>Visiting professor</p>
Visits	<p>BEN-GURION UNIVERSITY OF THE NEGEV 2001–2019 Beer-Sheva, Israel</p> <p>Exchange agreement with Bulgarian Academy of Sciences</p> <p>UNIVERSITY OF PATRAS 2003 Patras, Greece</p> <p>NATO CLG fellow</p>

UNIVERSITY OF FREIBURG 1993 DAAD (<i>German Academic Exchange</i>) fellow	Freiburg i.Br., Germany
WEIZMANN INSTITUTE OF SCIENCE 1987–1990 Long-term visitor (1987,1988); Visiting professor (1989,1990)	Rehovot, Israel
CERN, THEORY DIVISION 1985–1986 Scientific associate - one-year term; Short-term visitor (1992)	Geneva, Switzerland
RUSSIAN ACADEMY OF SCIENCES 1985, 1989 Scientific Visitor at Steklov Mathematical Institute and Lebedev Physical Institute.	Moscow, Russia
JOINT INSTITUTE FOR NUCLEAR RESEARCH 1981/2/3/4/5/7/8	Dubna, Russia
INTERNATIONAL CENTER FOR THEOR. PHYSICS 1984, 1985, 1986, 1987	Trieste, Italy

Grants and Awards

COST - EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY 2017–2021 COST Action CA16104 “Gravitational waves, black holes and fundamental physics” (GWnivers) (Substitute-Member of Management Committee)	
COST - EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY 2014–2018 COST Action MP1405 “The Quantum Structure of Spacetime” (QSPACE) (Substitute- Member of Management Committee)	
COST - EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY 2013–2017 COST Action MP1210 “The String Theory Universe” (Member of Management Committee)	
EUROPEAN COMMISSION FP6 Marie Curie RTN project “ <i>Forces-Universe</i> ” MRTN-CT-2004-005104	2004–2008
EUROPEAN COMMISSION FP5 RTN project “ <i>EUCLID</i> ” HPRN-CT-2002-00325	2002–2006

NATO SCIENCE DIVISION NATO Collaborative Linkage Grant <i>PST.CLG.978785</i>	2002–2004
BEN-GURION UNIVERSITY OF THE NEGEV, ISRAEL Exchange Agreement with Bulgarian Academy of Sciences Grants 2001–2004; 2004–2007; 2007–2009; 2009–2013; 2013–2016; 2016–2019	2001–2019
NATIONAL SCIENCE FOUNDATION, U.S.A. NSF Grant <i>INT-9724747</i>	1997–2000
ISRAELI MINISTRY OF ABSORPTION Giladi Fellowship	1995–1998
ISRAELI MINISTRY OF SCIENCE Shapiro Fellowship	1991–1994
<p>BULGARIAN NATIONAL SCIENCE FOUNDATION Grant <i>F-401/94</i> (1994–1998); Grant <i>F-904/99</i> (2000–2004); Grant <i>F-1412/04</i> (2004–2008); Grant <i>DO 02-257</i> of Framework Program “<i>Ideas</i>” (2008–2012); Grant <i>DFNI T02/06</i> (2015–2017) Grant <i>DN 18/1</i> (2017–2020)</p>	
<p>MINISTRY OF SCIENCE AND TECHNOLOGY OF BULGARIA 1984: <i>Bulgarian National Prize for Young Scientists</i>; 1987–1991: Project grant <i>F-003/87</i> (participant); 1987–1991: Project grant <i>F-403/87</i> (participant)</p>	