Professional data for MILUTIN BLAGOJEVIĆ

1 Curriculum Vitae

Address

Institute of Physics, University of Belgrade, P.O.Box 57,
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Personal data

Born in 1944, in Banicina, Serbia. Married, with two children.

Higher Education

Ph.D. Physics, University of Belgrade, 1975
Thesis: Electromagnetic excitations of nucleon resonances in a relativistic quark model
Advisor: Prof. Dragan Lalovic
M.Sc. Physics, University of Belgrade, 1971
Thesis: On the Pomeranchuk singularity in Veneziano model and unitarity
Advisor: Prof. Dragan Lalovic
B.Sc. Astrophysics, University of Belgrade, 1968
Thesis: On some relativistic models of the Universe
Advisor: Prof. Marko Leko

Academic positions

2011-present: Retired but continues to actively participate in research projects of the Belgrade group for Gravitation, Particles and Fields, see http://www.gravity.ipb.ac.rs/.
1984-2011: Professor of Physics (1987), Institute of Physics, Belgrade.
1968-1984: Assistant (1975) and Associate Professor (1981) of Physics, Institute of Nuclear Sciences, Vinca, Serbia.

Visiting positions (up to 3 months)

2012: PUCV, Valparaiso, Chile
2005-06: FMF and Institute Josef Stefan, Ljubljana, Slovenia
2000-03: PINT, Koper, Slovenia
2001, 2009, 2010: ITP, Koeln, Germany
1984, 1988, 1991: Brown University, Provience, USA
1981: Imperial College, London, UK

1980-90: RBI, Zagreb, Croatia (several times)
1980-94: ICTP, Trieste, Italy (several times)
1980, 1984: NY University, New York, USA
1978: Oxford University, Oxford, UK
1977: CERN, Geneva, Switzerland

Research Summary

2012-13: 3D gravity with propagating torsion (general formalism, BTZ black hole solution, holography, canonical analysis of the scalar sector);
2003-11: 3D gravity with torsion -- the Mielke-Baekler model (Chern-Simons formulation, BTZ black hole solution, asymptotic symmetries, canonical structure, black hole entropy, supersymmetric formulation, classical solutions, topologically massive gravity, spacetime streched AdS gravity, conserved charges, BHT massive gravity);
2000-03: teleparallel theory of gravity (teleparallel equivalent of GR, canonical structure, gauge symmetries, conservation laws);
1994-99: Liouville theory, 2D gravity and WZNW model;
1993: SUSY auxiliary fields from BRST;
1988-92: canonical/BRST quantization of antisymmetric tensor field, reducible gauge theories, bosonic and supersymmetric string theory;
1981-88: Poincare gauge theory (canonical formalism, gravitational singularity, general canonical properties, canonical generators, gauge symmetries, constraint algebra, conserved charges);
1978-88: quantum field theory of electric and magnetic charges (one-potential formulation, infrared problem, radiation effects, radiation damping, confinement);
1971-81: dynamical features of the relativistic quark model.

Courses taught

Undergraduate courses:	Relativistic quantum mechanics, Gravitation, Quantum field theory 1
Graduate courses:	Gravitation 1, Quantum field theory 1, Gravitation 2, Unification of Interactions

The courses were taught many times in the period 1976-2006.
When the number of students was less then four, the lectures were replaced by consultations.

Supervised Students

PhD:
2007, Branislav Cvetkovic, Asymptotic structure of 3D gravity with torsion
1995, Tatjana Vukasinac, Symmetries and covariant quantization of the

theory of gravity
1993, Nils Dalarson, Studies of chiral quantum barions
1984, Milovan Vasilic, Local symmetries in Poincare gauge theory
1981, Ignjat Nikolic, Canonical structure of Poincare gauge theory

MSc:

2005, Branislav Cvetkovic, Canonical structure of 3D gravity with torsion
1992, Tatjana Vukasinac, BRST symmetry and auxiliary fields
1983, Milovan Vasilic, Extra gauge symmetries in an R+T^2 theory of gravity
1981, Ignjat Nikolic, Hamiltonian frmulation of Einstein-Cartan theory of gravity
1982, Svetislav Lazarev, Bound states of quarks in a relativistic quark model

BSc:

1998, Predrag Ranin, Schwarzschild solution in general relativity
1997, Marija Zamlakar, Schwarzschild singularity in general relativity
1995, Marko Popovic, The twin paradox in general relativity
1994, Olivera Miskovic, Hamiltonian Dynamics of constrained systems
1986, Sladjan Miletic, Weyl's theory of gravity
1986, Ljubinko Ignjatovic, Gravitational waves
1985, Sanja Damnjanovic, Gravity in flat spacetime
1984, Vladimir Matic, Kaluza-Klein theory
1983, Djuro Mastilovic, Axially symmetric gravitational field

Awards and Honors

2012: Award of the Serbian Academy of Sciences and Arts for research achievements in the field of gauge theories of gravity.
2011: Grand prix of the Institute of Physics for research work, at the occasion of the 50th anniversary of the Institute of Physics, Belgrade.
2010: DAAD scholarship for a one-month visit to Prof. Hehl, ITP, Cologne, Germany (joint work on the book Gauge Theories of Gravitation).
2009: DAAD scholarship for a two-month visit to Prof. Hehl, ITP, Cologne, Germany (joint work on the book Gauge Theories of Gravitation [1]).
2003: Award of the City of Belgrade for the research achievements in the theory of gravity, presented in the book Gravitation and Gauge Symmetries, see Ref. [2].
2001: DAAD scholarship for a two-month visit to Prof. Hehl, ITP, Cologne, Germany (joint work on Gauge Approach to Gravity).
1988: Award of the Institute of Physics for research achievements in the theory of magnetic monopoles, presented in the review article The Quantum Field Theory of Electric and Magnetic Charge [5].

A selected list of invited seminar/meeting talks

2013: Poincare gauge theory in 3D: canonical stability in the scalar sector, arXiv:1310.8309 [gr-qc], Gravity: New ideas for unsolved problems II, see http://www.gravity.ipb.ac.rs/events.html;
2012: Theory of gravity with local symmetry, Belgrade, Serbian Academy of Sciences and Arts;
2012: Gravitation and local symmetries, Meeting of the Serbian physical society, Vrnja˘ cka banja;
2012: 3D gravity with propagating torsion, niversidad Andres Bello, Santiago, Chile;
2012: Asymptotic structure of 3D gravity with torsion, Pontificia Universidad Catolica de Valparaiso, Chile;
2011: Canonical structure of Poincare gauge theory, Gravity: New ideas for unsolved problems I, see http://http://www.gravity.ipb.ac.rs/events.html;
2010: Hamiltonian analysis of BHT massive gravity, ITP, Cologne, Germany;
2009: Canonical structure of topologically massive gravity, ITP, Cologne, Germany;
2007: Gravitation with torsion and curvature, University of Nis, Department of Physics;
2007: Alternative theories of gravity, Project Meeting in Novi Sad/Fruska gora;
2006: Black hole entropy in 3D gravity with torsion, Department of Physics, University of Ljubljana;
2005: Conserved charges in 3D gravity with torsion, Bled workshop, Slovenia;
2004: Anti-de Sitter 3-dimensional gravity with torsion (with M. Vasilic), III Summer school in modern mathematical physics, Zlatibor '03, Serbia;
2003: Three lectures on Poincare gauge theory, II Summer School in Modern Mathematical Physics, Kopaonik, Yugoslavia [arXiv:gr-qc/0302040];
2001: Canonical structure of Poincare gauge theory (3 lectures), ITP, Cologne, Germany;
2000: Hamiltonan structure and gauge symmetries of Poincare gauge theory, Meeting of the German physical society, Dresden;
1986: Renormalization, Wess--Zumino interaction and n-independence in monopole theory, V Adriatic Meeting;
1984: On the infrared problem in the theory of magnetic monopoles, New York University, New York
1982: Poincare gauge theory of gravity, Yugoslav meeting on elementary particle physics, Jahorina 1982.

1982: M. Blagojevic, Magnetic monopoles, Yugoslav meeting on elementary particle physics, Jahorina 1982.

1982: M. Blagojevic and S. Lazarev, The problem of bound states of heavy fermions, Yugoslav Meeting on elementary particle physics, Jahorina 1982.

1977: M. Blagojevic and D. Lalovic, Binding of quarks in a unified gauge theory of weak, electromagnetic and strong interactions, Meeting on strong dynamics, Samobor 1977.

Books and Review articles

[1] M. Blagojevic and F. W. Hehl (eds.), *Gauge Theories of Gravitation: A Reader with Commentaries* (Imperial College Press, London, 2013), pp. 656.

[2] M. Blagojević, *Gravitation and Gauge Symmetries* (Institute of Physics Publishing, Bristol, 2002), pp. 522.

[3] M. Blagojević, *Gravitation and local symmetries* (in Serbian) (Institut of Physics, Belgrade, 1997), pp. 483.

[4] M. Blagojević and P. Senjanović, The quantum field theory of electric and magnetic charge, *Physics Reports* **157** (1988) 233-346.

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