

Florin Alexandru BELGUN

Curriculum Vitae

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Personal Data

Date of birth March 4, 1972

Citizenship French, Romanian

Languages English, French, German, Romanian (all fluent).

Education and Qualifications

1990-1993	Study of Mathematics	Univ. Bucharest, Romania
1990-1991	DAAD Scholarship	Univ. Bonn, Germany
1993-1996		Ecole Normale Supérieure (ENS), Paris, France
1994	DEA (master) in Mathematics	Univ. Paris 7, France
1999	PhD in Mathematics	Ecole Polytechnique, Palaiseau, France
2010	Habilitation in Mathematics	Univ. Paris 7, France

Professional experience

1996-1999	AMN (assistant - research and teaching)	Univ. Cergy-Pontoise
1999-2001	Researcher in the research training group (SFB) 288 "Differential Geometry and Quantum Physics"	Humboldt Univ. Berlin
2001-2009	Scientific Assistant (research and teaching)	Univ. Leipzig, Germany
2007	Guest Professor - BMS (Berlin Math. School)	Humboldt Univ. Berlin
2008	Guest Researcher - CNRS	École Polytechnique, Palaiseau
2009-2010	Research fellow - DFG (SPP 1154)	Humboldt Univ. Berlin
sept. 2010	Guest Researcher	École Polytechnique, Palaiseau
2010-2013	Researcher in the SFB 676, project A6 "Mathematical aspects of string compactifications"	Univ. Hamburg
2013-2014	Guest Professor	Ludwig-Maximilian Univ. Munich
7-9.2014	Researcher in the SFB 2085	Univ. Regensburg
10.2014-	Guest Professor	Univ. Hamburg
3.2015		
4.-9.2015	Guest Professor	Humboldt Univ. Berlin

Fellowships, Invitations

1990-1991	DAAD	5-month scholarship in the Univ. Bonn
1993-1996	CROUS	3-year scholarship in the ENS Paris
2001	CNRS	1-month invitation in the Univ. Aix-Marseille 1

Third-party project

2007-2009 DFG travel expenses on a SPP 1154 - project
Differential operators and relations between G-structures

Awards, Memberships

1988-1990	IMO	two silver medals (1988, 1989) and one gold medal (1990)
2005-2009	LSGM	leader of a math circle in Leipzig (2005-2007)
2010-	Math. Seminar	Membership in the Math. Seminar of the Univ. Hamburg.

Teaching experience

1996-1999	Univ. Cergy-Pontoise -undergrad.	seminars - french
april 1999	Univ. Cluj (Romania) -grad. level	Lecture (on the index theorem) - french
2001-2009	Univ. Leipzig - undergrad.	seminars - german and english
2002	Univ. Leipzig - grad. level	Lecture (characteristic classes) - german
2003	Univ. Leipzig - grad. level	Lecture (Lie groups) - german
2007	Humboldt Univ. Berlin - grad. level	Lecture + Seminar (Repres. theory) - german
2011-2012	Univ. Hamburg - grad. level	Seminar (locally conf. Kähler metrics) - english
2011-2012	Univ. Hamburg - grad. level	Short lecture (bihermitian surfaces), - english.
2013-2014	LMU Munich - undergrad.	Lecture (Linear Algebra for informaticians and statisticians) - german
2013-2014	LMU Munich - grad. level	Lecture (Kähler geometry) - english
2014	LMU Munich - grad. level	Lecture (Mathematical Gauge theory) - english
2014-2015	Univ. Hamburg - grad. level	Lecture (Gauge theory) - english

Organization of Seminars, Conferences, Summer schools

1996	Summer school in <i>Geometry and Physics</i> , Sinaia, Romania, May 1996
2005	Conference in honour of Paul Gauduchon's 60th birthday, Palaiseau, France, 18-20.5.2005
2012	Summer school in <i>Differential geometry and Supersymmetry</i> , Univ. Hamburg, 10-14.9.2012
2013	4th Northern German Differential Geometry Day, Hamburg 14.6.2013

Talks given in the last 3 years

2012	Seminar - Univ. Hamburg, 9.1.2012	Möbius and Laplace structures
2012	Meeting of the ANR-10-BLAN-0105, "Aspects conformes de la Géométrie", Univ. Paris 6, 16.3.2012	Extrinsic conformal geometry
2012	Conference "Symmetries in differential geometry and mathematical physics", Luxembourg, 3-6.9.2012	Projective curves in conformal geometry.
2013	Seminar - Institute of mathematics of the Romanian Academy (IMAR), Bucharest, Romania, 11.2.2013	Generalized Calabi-Eckmann manifolds
2013	Anniversary conference: Faculty of Sciences - 150 years, Univ. Bucharest, Romania, 30.8-1.9.2013	Conformal geometry, projective curves and Hill's equation
2013	Workshop - Differential Geometry and Applications, Ploiești, Romania, 19-22.9.2013	Hermitian metrics on compact, non-Kähler threefolds
2013	Seminar - LMU Munich, 22.10.2013	Generalized Calabi-Eckmann threefolds
2013	Seminar - LMU Munich, 26.11.2013	Curves in conformal geometry
2014	Conference "Lorentzian and conformal geometry", Greifswald, 18-21.3.2014	Conformal submanifold geometry: structure of curves
2014	Seminar, Univ. Regensburg, 16.05.2014	Hermitian, non-Kähler metrics in small dimensions
2014	Workshop "Complex geometry and Lie groups", 16-20.6.2014 Turin, Italy	Special classes of non-Kähler metrics in small dimensions
2014	Conference "Real and Complex differential Geometry", 8-12.09.2014, Univ. Bucharest, Romania	Invariants of conformal submanifolds
2014	Seminar Univ. Tours, France, 28.11.2014	Structure of curves in conformal geometry
2015	Seminar Univ. Angers, France, 24.03.2015	Uniformization of generalized Calabi-Eckmann manifolds of dimension 3
2015	Seminar Univ. Montpellier, France, 27.03.2015	Structure of submanifolds in a conformal space

Publications

Thesis

1. F. A. Belgun (1995). Le fibré des twisteurs d'une variété riemannienne. (Mémoire de Magistère MM-FAI), Université Paris 7 / École Normale Supérieure Paris.
2. F. A. Belgun (1999). Géométrie conforme et géométrie CR en dimensions 3 et 4. (PhD Thesis), École Polytechnique, Palaiseau, France.
3. F. A. Belgun (2010). Structures spéciales en géométrie riemannienne. (Habilitation à diriger les recherches), University Paris 7.

Refereed research papers

1. F. A. Belgun (2000). On the metric structure of non-Kähler complex surfaces. *Math. Ann.* **317**, 1–40.
2. F. A. Belgun (2001). Normal CR structures on compact three-manifolds. *Math. Z.* **238**, 441–460.
3. F. A. Belgun (2001). Null-geodesics in complex conformal manifolds and the LeBrun correspondence. *J. Reine Angew. Math.* **536**, 43–46.
4. F. A. Belgun (2001). The Einstein-Dirac equation on Sasakian 3-manifolds. *J. Geom. Phys.* **37**, 229–236.
5. F. A. Belgun and A. Moroianu (2001). Nearly Kähler 6-manifolds with reduced holonomy. *Ann. Glob. Anal. Geom.* **19**, 307–319.
6. F. A. Belgun (2003). Normal CR structures on S^3 . *Math. Z.* **244**, 125–151.
7. F. A. Belgun, A. Moroianu, and U. Semmelmann (2003). Symmetries of contact metric manifolds. *Geom. Dedicata* **101**, 203–216.
8. F. A. Belgun (2004). On the Weyl tensor of a self-dual complex 4-manifold. *Trans. Am. Math. Soc.* **356**, 853–880.
9. F. A. Belgun, A. Moroianu, and U. Semmelmann (2006). Killing forms on symmetric spaces. *Diff. Geom. Appl.* **24**, 215–222.
10. F. A. Belgun, N. Ginoux, and H.-B. Rademacher (2007). A singularity theorem for twistor spinors. *Ann. Inst. Fourier.* **57**, 1135–1159.
11. F. A. Belgun and A. Moroianu (2011). Weyl-parallel forms, conformal products and Einstein-Weyl manifolds. *Asian J. Math.* **15**, 499–520.
12. F. A. Belgun, A. Moroianu, and L. Ornea (2011). Essential points of conformal vector fields. *J. Geom. Phys.* **61**, 589–593.
13. F. A. Belgun and A. Moroianu (2014). On the irreducibility of locally metric connections. *published online in J. Reine Angew. Math.* (preprint arXiv: 0907.3182).
14. F. A. Belgun (2015). Geodesics and submanifold structures in conformal geometry. *to appear in J. Geom. Phys.* **91**, Special issue: Complex and conformal geometry in honor of Paul Gauduchon, (preprint arXiv:1411:4404).

Preprints

1. F. A. Belgun (1996). L'espace des twisteurs d'une variété conforme de dimension impaire. (preprint Nr. 1142 de l'École Polytechnique).
2. F. A. Belgun (2012). On the metric structure of some non-Kähler complex threefolds. (preprint arXiv: 1208.4021).
3. F. A. Belgun, V. Cortés, M. Freibert, and O. Goertsches (2014). On the boundary behavior of left-invariant Hitchin and hypo flows. (preprint arXiv: 1405.1866, under revision at J. London Math. Soc.)
4. F. A. Belgun and A. Moroianu. Conformal geodesics, projective curves and Hill's equation. (preprint).

Current projects

1. F.A. Belgun, L. Ornea, and M. Pilca. Structure of toric locally symplectic manifolds. (work in progress).