

Curriculum Vitae

Personal Information

Name Pierre Bieliavsky

Addresses

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Place of birth Brussels

Date of birth 04/25/1970

Citizenship Belgian

Family Mélanie Bertelson with whom I have two children, Marguerite (born 12-09-2003) and Jeanne (born 10-02-2006). We all live together at the above-mentioned home address.

Research Fields

Differential geometry, Lie theory, Symmetric spaces, symplectic and Poisson geometry, deformation quantization, Harmonic analysis, Non-commutative Geometry, representation theory, mathematical physics.

Education

- 1) *Licence en Sciences Mathématiques. Université Libre de Bruxelles.* From 1987-88 until 1990-91.
- 2) Ph.D. in Mathematical Sciences. *Université Libre de Bruxelles.* From 1991-92 until 1994-95.
Advisors : Michel Cahen, Simone Gutt.
Title : *Espaces Symétriques Symplectiques.*
Jury members : Didier Arnal (Metz, France), Michel Cahen (Brussels, Belgium), Moshé Flato (Dijon, France), Simone Gutt (Brussels, Belgium), Luc Lemaire (Brussels, Belgium), Monique Parker (Brussels, Belgium), John Rawnsley (Warwick, United Kingdom).
Grade obtained : The Greatest Distinction.

- 3) Belgian American Educational Foundation Fellowship. Academic year 1995-96.
- 4) Consultant (in E-theory) under *NSF* grant (PI: Professor J. D. Trout, Dartmouth College, USA). 2000-2003.
- 5) *Prix THÉOPHILE DE DONDER*. Prize awarded by the Royal Academy of Sciences of Belgium for the best work in mathematical physics over a period of three years (2000-2002)¹. Awarded for the article "Strict quantization of solvable symmetric spaces" (see reference 12) below).
- 6) "Bourse de financement" *FSR*; UCL, October 2004.
- 7) "Financement *FRFC*", co-director, joint with F. Englert, M. Henneaux (ULB) and Ph. Spindel (UMH); FNRS, still running since October 2005.
- 8) "Pôle d'Attraction Interuniversitaire" (Belgian Federal Government), for a period of 5 years starting from January 1st 2007; joint with J. Bricmont, L. Haine, Ph. Ruelle, P. van Moerbeke (PI and coordinator).
- 8) JSPS pure research grant (Japanese Society for Promotion of Science), November and December 2008, Keio University (Japan).
- 9) Bilateral agreement FNRS-JSPS (Japan), co-director since October 2010.
- 10) Principal investigator and coordinator of the Interuniversity Attraction Pole 'DYGEST' (Belgian Federal Government, Phase VII) involving KULeuven, ULBrussels, ULiège. Starting date: October 1, 2012. Ending date: October 1, 2017. (Total budget: 2,5 million Euros.)
- 11) Investigator of the Belgian side in the JSPS Core-to-Core Program on *Foundation of a Global Research Cooperative Center in Mathematics focused on Number Theory and Geometry*, Japan, 2014.

Active Participation to International Colloquia

- 1) "Symmetric symplectic spaces". "Colloque de géométrie différentielle". *Université de Metz*, France. June 1994.
- 2) "Symmetric spaces and star products". "Workshop in Riemannian geometry". Han-sur-Lesse, Belgium. November 1994.
- 3) "Star Representations". "Northern California Symplectic Geometry Seminar : U. C. Berkeley, U. C. Davis, U. C. Santa Cruz and Stanford University". Stanford University, USA. November 1995.
- 4) "On the de Rham decomposition theorem". "Workshop on Lie groups and representation theory". U. C. Berkeley, USA. April 1996.
- 5) "Espaces symétriques et quantification". "Rencontres mathématiques". Glanon, France. July 1997.
- 6) "Symmetric spaces revisited". "Rencontres mathématiques". Glanon, France. July 1998.
- 7) "Strict deformation quantization of symmetric spaces". AMS meeting at Penn State University, USA. October 1998.
- 8) "Strict deformation quantization of Kaehlerian groups and Fuchs pseudodifferential calculus on rank-one non-compact Hermitian symmetric spaces". "Northern California Symplectic Geometry Seminar : U. C. Berkeley, U. C. Davis, U. C. Santa Cruz and Stanford University". Stanford University, USA. April 2000.
- 9) "Introduction à la quantification stricte". "Rencontres mathématiques". Glanon, France. July 2000.
- 10) "Quantization of Symmetric Spaces revisited". "Journées du Solstice". *Université Paris VII*, France. June 2002.

¹See <http://www.cfwb.be/arb/FondationsSC.htm>

- 11) "Strict Quantization of Symmetric Spaces". Tohoku University, Japan. November 2002.
- 12) "Deformation for Lie groups actions, black holes and strings". Alan Weinstein fest (Poisson geometry and moment maps). Erwin Schroedinger International Institute for Mathematical Physics, Austria. August 2003.
- 13) "Towards noncommutative locally anti-de Sitter (BTZ) black holes"; Noncommutative Geometry and Physics 2004; Keio University, Japan, March 2004.
- 14) "Quantisation of symmetric symplectic spaces"; 20th international workshop on differential geometry and theoretical mechanics; Ghent, 21-27 August 2005.
- 15) "Certains aspects de la quantification des espaces symétriques"; Journées metz-Nancy-Strasbourg, June 2006.
- 16) "Universal Deformation Formulae and noncommutative Black Holes"; Noncommutative Geometry and Physics: Fundamental Structure of Space and Time, Isaac Newton Institute for Mathematical Sciences, Cambridge (UK), September 2006.
- 17) Workshop on noncommutative manifolds, (ICTP/SISSA) Trieste, October 2004.
- 18) "Lectures on Quantization" (12 hours) at Contemporary Problems in Mathematical Physics, COPROMAPH5 conference, Cotonou (Benin), November 2007.
- 19) "Symmetric spaces geometrical methods in Quantization" Int. Conference *Noncommutative Geometry and Physics*, April 2007. Orsey.
- 20) "Universal Deformation Formulae for non-Abelian Lie group actions and symmetric spaces", Oberwolfach Seminar in Noncommutative Geometry, October 2007.
- 21) "Some aspects of non-formal deformation quantization" ; XI International Workshop on Wavelets, Differential Equations and Differential Geometric Methods, University of Havana, February 18-22, 2008 Havana.
- 22) Plenary talk "Some aspects of non-formal deformation quantization", XXVII International Colloquium on Group Theoretical Methods in Physics (GROUP - 27) Yerevan, Armenia. August 13-19, 2008.
- 23) Plenary conference "XXVIII Workshop on Geometric Methods in Physics", Bieloweza (Pologne). Juin 2009.
- 24) Invitation "Oberwolfach workshop in Noncommutative geometry", Oberwolfach (Allemagne). Septembre 2009.
- 25) Plenary conference "Noncommutativity and Physics: Spacetime Quantum Geometry, Bayrischzell Workshop", Bayrischzell (Allemagne). Juin 2010.
- 26) Plenary conference "Oberwolfach workshop in Deformation Theory", Oberwolfach (Allemagne). Septembre 2010.
- 27) Plenary conference at INDAM Meeting: Noncommutative Geometry, Index Theory and Applications Cortona, June 11-15 2012.
- 28) Plenary conference at XXXI Workshop on Geometric Methods in Physics, Bialowieza, June 2012.
- 29) Plenary conference at Bayrischzell Workshop 2012 Noncommutativity and Physics: Spacetime Quantum Geometry Bayrischzell, May 25-28, 2012
- 30) Plenary conference at Seminar Sophus Lie; Luxembourg, June 15-16, 2012.
- 31) Plenary conference at the Seminar on HARMONIC ANALYSIS 21-22 September 2012, Institute of Mathematics of the Romanian Academy, Bucharest

- 32) Plenary conference at Japan-Belgium Research Cooperative Program workshop (JSPS - FNRS), Kyoto University, September 2012.
- 32) Plenary conference at the Conference on the Occasion of Martin Schlichenmaier's 60th Birthday December 10-12, 2012, University of Luxembourg.
- 32) Plenary conference at the Workshop on Quantization and Reduction 2013, Univ. of Erlangen, Erlangen, Germany, March 2013.
- 28) Invited conference at the Workshop on Noncommutative Field Theory and Gravity September 8 - 15, 2013.
- 28) Plenary conference at the "Qdays in Barcelona", October 2013, Barcelona, Spain.
- 28) Plenary conference at the XVII International Workshop on Wavelets, Differential Equations, and Random Matrices; University of Havana, February 17-21, 2014.
- 28) Plenary conference at the Frontiers in Fundamental Physics (FFP14) conference, Marseille, July 2014.
 - Forthcoming: Plenary conference at Philippe Spindel's fest (June 2015, Mons, Belgium). Plenary conference at the Bayrischzell Workshop, Bayrischzell (Germany). June 2015.

Other Conferences given on invitation

More than 70, mainly in Europe, USA and Japan.

Thesis supervision

- Supervision of Sébastien Racanière's DEA thesis (Strasbourg-Brussels) on symplectic symmetric spaces. Summer 1998.
- Supervision of Gabriel Claus's undergraduate thesis (Brussels) on Toric manifolds. Academic year 1999-2000.
- Supervision of Clément Hyvrier's undergraduate thesis (Brussels) on nilpotent orbits of semisimple Lie groups. Academic year 2001-2002.
- Supervision of Clément Hyvrier's DEA thesis (Brussels) on anti-de Sitter black holes. Academic year 2002-2003.
- Supervision of Pauline Tranchant's undergraduate thesis on the geometry at infinity of BTZ spaces, UCL, academic year 2007-2008.
- Supervision of Violaine Simons's undergraduate thesis on macromolecular DNA structures and knot theory, UCL, academic year 2010-2011.
- Supervision of Nuno Alexandre Abreu de Araujo's undergraduate thesis on the non-commutative torus, UCL, academic year 2011-2012.
- Supervision of Laurent Claessens Ph. D. thesis (UCL): *Deformation quantization of locally anti de Sitter spaces*. Graduation September 2007.
- Supervision of Yannick Voglaire DEA and Ph. D. thesis (UCL) on the quantization of hermitian symmetric spaces. Graduation: December 2011.
- Ph.D. Thesis supervisor of Stéphane Korvers (aspirant FNRS, UCL), graduation: September 2014.
- Ph.D. Thesis supervisor of Nestor Anzola (boursier UNIKIN-UCL), graduation December 2013.

Experience and Accomplishments

Positions held

- 1) Assistant. *Université Libre de Bruxelles*, Belgium. From 10-1-1991 until 12-31-1991.
- 2) IRSIA Fellow. From 1-1-1992 until 9-30-1993.
- 3) Full-time Assistant. *Université Libre de Bruxelles*, Belgium. From 10-1-1993 until 9-30-1999.
- 4) Research Fellow. University of California at Berkeley, USA. Academic year 1995-96.
- 5) Visiting Assistant Professor. Pennsylvania State University, USA. First semester 1996-97.
- 6) *Maître de Conférences invité*. *Université de Metz*, France. January 1997.
- 7) Visiting Assistant Professor. Dartmouth College, USA. Academic year 1998-99.
- 8) *Maître de Conférences invité*. *Université de Nice-Sophia-Antipolis*, France. June-July 1999.
- 9) *Maître de Conférences invité*. *Université de Dijon*, France. July-August 1999.
- 10) *Maître de Conférences invité*. *Université Nancy I*, France. May 2000.
- 11) *Premier Assistant* (tenured position), *Université Libre de Bruxelles*, Belgium. From 10-1-1999 till 01-09-04.
- 12) *Visiting Research Fellow*, *Keio University*, Japan, February 2004.
- 13) *Professeur invité*. *Université de Reims*, France. April 2005.
- 14) *Professeur invité*. *Université de Nice*, France. June 2005.
- 15) *Maître de Conférences invité*. *Université de Metz*, France, April 2007.
- 16) *Maître de Conférences invité*. *Université de Metz*, France, October 2008.
- 17) *Invited Professor*, *Concordia University*, Montreal, Canada, 2 weeks in June 2008.
- 18) *Invited Professor*, *Keio University*, Japan, Nov. —Dec. 2008.
- 19) *Professeur invité*. *Université de Metz*, France. January 2009.
- 20) *Invited Professor*. *Université Libre de Bruxelles*, October 2009-October 2013.
- 21) *Professeur invité*. *Université de Nancy*, France. March 2009.
- 22) *Professeur invité*. *Université de Metz*, France. June 2013.
- 23) *Associate Professor* ('*Chargé de cours*'), *Université Catholique de Louvain*, Belgium. 01-09-2004 till 31-08-2011.

Present occupation

Professor, *Université Catholique de Louvain*, Belgium. Since 01-09-2011.

Head of the team *Differential Geometry and Physical Mathematics* at the Institut de Recherche in Mathematics and Physics, UCLouvain, Belgium.

Members at the present time: Natacha Cappelle (PhD student, UCLouvain assistant), Axel Marcillaud de Goursac (FNRS-postdoc), Valentin Dendoncker (PhD student, UCLouvain assistant), Liebrecht De Sadeleer (joint PhD. student with J. Quagebeur, KULeuven-UCLouvain), Jérémy Haut (PhD student, FNRS-grant), Alban Jago (PhD student, FNRS-FRIA), Stéphane Korvers (PhD student, FNRS-grant), Laurent la Fuente (IAP-postdoc), Jean-Philippe Michel (IAP-postdoc), Florian Spinnler (PhD student, FNRS-FRIA).

Forthcoming: Sabbatical year starting from January 2015.

Honors and Awards

- 1) *Bourse IRSIA*. Academic years 1991-92 and 1992-93.
- 2) *Bourse ERASMUS*, *Université de Metz*, France. Academic year 1992-93.

Lectures

- "Aspects of Quantizations", (COPROMAPH 2007) Cotonou, Benin, 2007.
- "Macromolecular structures and knot theory", ULBrussels, academic years 2009-2013.
- "Geometric Quantization", (COPROMAPH 2013) Cotonou, Benin, 2013.
- "Noncommutative surfaces", Metz, France, March 2014.
- "Deformation Quantization", Wuerzburg University, Wuerzburg, Germany, April 20014.
- "Non-formal deformation quantization", Bialowieza, Poland, July 2014.

Conference organization

- Co-organizer of the "Rencontres Mathématiques de Glanon". Colloquium held in France annually since 1997.
- Co-organizer of the International EuroSchool and EuroConference PQR 2003, "Poisson geometry, Deformation quantization and Group Representations", *Université Libre de Bruxelles*, Belgium. June 2003.
- Co-organizer of "Poisson 2006" conference, held in Tokyo in June 2006.
- Co-organizer of Groupe de Travail "Methodes des orbites et theorie des cordes", IHP, Paris 2006.
- Co-organizer of the International conference "Non commutative structures in mathematics and physics (NoMaP)" held in Brussels in July 2008.
- Co-organizer of colloque international "Analyse et symétries" à l'université de Reims (France) 2010.
- member of the scientific advisory board of WORKSHOP ON GEOMETRIC METHODS IN PHYSICS, Bialoweza (Poland), since July 2010.
- Co-organizer of "Noncommutative Geometry : Topics in Mathematics and Mathematical Physics" à Paris XI Orsay, november 2009.
- Co-organizer of Harmonic Analysis, *Deformation Quantization and Noncommutative Geometry*, Scalea, Italy September 4 - 9, 2011
- Main organizer of the conference "DyGeSt Corfu meeting", Corfu, Greece, June 2013.
- Co-organizer of the international conference GEOQUANT 2013, E. Schrödinger Institute, Vienna, August 2013.
- Co-organizer of the international conference *Corfu2013 "Noncommutative Field Theory and Gravity"*, Corfu, Greece, September 2013.
- Co-organizer of the *Bayrischzell Workshop 2013*, Quantization, topological models and generalized geometries Bayrischzell, May 24-27, 2013.
- Co-organizer of the *30th International Colloquium on Group Theoretical Methods in Physics*, 14 - 18 July 2014, Ghent, Belgium.
- Co-organizer of the international conference "Belgian Bracket and Quantisation Workshop", Université libre de Bruxelles, Belgium, April 1 - 3, 2014.
- Co-organizer of the WORKSHOP ON GEOMETRIC METHODS IN PHYSICS, Bialoweza (Poland), years 2013 and 2014.

- Co-organizer of the international conference “Noncommutative Geometry and Mathematical Physics”, Scalea, Italy June 16 - 20, 2014.
- Forthcoming: co-organizer of the Oberwolfach mini-workshop (ID: 1508c), *Deformation Quantization: between formal to strict* (Pierre Bieliavsky, Louvain-la-Neuve; Chiara Esposito, Wuerzburg; Ryszard Nest, Copenhagen; Stefan Waldmann, Wuerzburg). February 2015.

Other

- vice-président of groupe de contact FNRS (président S. Gutt, ULBrussels) en géométrie différentielle. since 2004.
- Member of the executive committee of the Belgian Mathematical Society since October 2002.
- Member in the Editorial Board of the journal *Geometry*, Hindawi Publishing Corporation.
- Referee for the following journals :
Geometriae Dedicata, Journal of Mathematical Physics, Letters in Mathematical Physics, Reports in Mathematical Physics, Transformation groups, Journal of Noncommutative Geometry, Journal für die Reine und Angewandte Mathematik, International Journal of Theoretical Physics, Communications in Mathematical Physics, Acta Mathematica Vietnamica, SIGMA.

Publications of Pierre Bieliavsky

Published or to appear

- 1) Bieliavsky, P.; *Extensions de dimension un de l'algèbre de Heisenberg et espaces pseudoriemanniens symétriques*. Acad. Roy. Belg. Bull. Cl. Sci. (6) **3** (1992), no. 12, 299–315.
- 2) Bieliavsky, P.; Cahen, M.; Gutt, S.; *Symmetric symplectic manifolds and deformation quantization*. Modern group theoretical methods in physics (Paris, 1995), Math. Phys. Stud. **18** Kluwer Acad. Publ., Dordrecht, 1995, 63–73.
- 3) Bieliavsky, P.; Cahen, M.; Gutt, S.; *A class of homogeneous symplectic manifolds*. Geometry and Nature (Madeira, 1995), Contemp. Math. **203** Amer. Math. Soc., Providence, RI, 1997, 241–255.
- 4) Bieliavsky, P.; *Four-dimensional simply connected symplectic symmetric spaces*. Geom. Dedicata **69** (1998), no. 3, 291–316.
- 5) Bieliavsky, P.; *Semisimple symplectic symmetric spaces*. Geom. Dedicata **73** (1998), no. 3, 245–273.
- 6) Bertelson, M.; Bieliavsky, P.; Gutt, S.; *Parameterizing equivalence classes of invariant star products*. Lett. Math. Phys. **46** (1998), no. 4, 339–345.
- 7) Bieliavsky, P.; Falbel, E.; Gorodski, C.; *The classification of simply connected sub-Riemannian contact symmetric spaces*. Pacific Journal of Mathematics **188** (1999), no. 1, 65–82.
- 8) Bieliavsky, P.; *Symmetric spaces and star representations*. Advances in Geometry, Progr. Math. **172**, Birkhäuser (Boston), 1999, 71–82.
- 9) Bieliavsky, P.; Massar, M.; *Strict deformation quantization for actions of a class of symplectic Lie groups*. Progress of Theoretical Physics Supplement **144** (2001), 1–21. (math.QA/0011144).
- 10) Bieliavsky, P.; Massar, M.; *Oscillatory integral formulae for left-invariant star products on a class of Lie groups*. Lett. Math. Phys. **58** (2001), 115–128.
- 11) Bieliavsky, P.; Pevzner M.; *Symmetric spaces and star representations II. Causal symmetric spaces*. Journal of Geometry and Physics **41** (3) (2002), 224–234. (math.QA/0105060).
- 12) Bieliavsky, P.; *Strict quantization of solvable symmetric spaces*, Journal of Symplectic Geometry **1** (2002), no. 2, 269–320. (math.QA/0010004).
- 13) Bieliavsky, P.; Maeda, Y.; *Convergent star product algebras on “ax+by”*. Lett. Math. Phys. **62** (2002), no. 3, 233–243. (math.QA/0209295).
- 14) Bieliavsky, P.; Rooman, M.; Spindel, Ph.; *Regular Poisson structures on massive non-rotating BTZ black holes*. Nuclear Physics B **645**, Issues 1-2, 25 (2002), 349–364. (hep-th/0206189).
- 15) Bieliavsky, P.; Bonneau, Ph.; *On the geometry of the characteristic class of a star product on a symplectic manifold*. Rev. Math. Phys. **15** (2003), no. 2, 199–215. (math.QA/0112301).
- 16) Bieliavsky, P.; Bordemann, M.; Gutt, S.; Waldmann, S.; *Traces for star products on the dual of a Lie algebra*. Rev. Math. Phys. **15** (2003), no. 5, 425–445. (math.QA/0202126).
- 17) Bieliavsky, P.; Detournay, S.; Herquet, M.; Rooman, M.; Spindel, Ph.; *Global geometry of the 2+1 rotating black hole*. Phys. Lett. B **570** (2003), 231–236. (hep-th/0306293).
- 18) Bieliavsky, P.; Pevzner, M.; *Symmetric spaces and star representations III. The Poincaré disk*. Non-commutative Harmonic Analysis, Progress in Mathematics **220**, Birkhäuser Boston. P. Delorme, M. Vergne eds (2004). (math.RT/0209206).
- 19) Pierre Bieliavsky, Stéphane Detournay, Marianne Rooman, Philippe Spindel; *Star products on extended massive non-rotating BTZ black holes*; JHEP 0406 (2004) 031. (hep-th/0403257)

- 20) Bieliavsky, Pierre; Bonneau, Philippe; Maeda, Yoshiaki *Universal deformation formulae, symplectic Lie groups and symmetric spaces*. Pacific J. Math. 230 (2007), no. 1, 41–57. (math.QA/0308189)
- 21) Bieliavsky, P.; Bonneau, Ph.; Maeda, Y.; *Universal Deformation formulae for three-dimensional solvable Lie groups*, Lect. Notes Phys. 662, 127-141 (2005). (math.QA/0308188)
- 22) Pierre Bieliavsky, Stephane Detournay, Marianne Rooman, Philippe Spindel; *Noncommutative Locally Anti-de Sitter Black Holes*; Noncommutative geometry and physics, 17–33, World Sci. Publ., Hackensack, NJ, 2005. (math.QA/0507157)
- 23) Pierre Bieliavsky, Michel Cahen, Simone Gutt, John Rawnsley, Lorenz Schwachhofer; *Symplectic connections*; Int. J. Geom. Methods Mod. Phys. 3 (2006), no. 3, 375–420. (math.SG/0511194)
- 24) P. Bieliavsky, S. Detournay, M. Rooman, Ph. Spindel; *BTZ black holes, WZW models and noncommutative geometry*; proceedings of the "Rencontres mathématiques de Glanon", July 2004. (hep-th/0511080)
- 25) Pierre Bieliavsky, Xiang Tang, Yijun Yao; *Rankin-Cohen brackets and quantization of foliation, Part I: formal quantization*; (math.QA/0506506). Advances in Mathematics; vol 212 no. 1 (2007); pp. 293-314.
- 26) P. Bieliavsky, C. Jegou, J. Troost; *Open strings in Lie groups and associative products* Nuclear Phys B. vol. B782, issues 1-2. (2007) pp. 94-133.
- 27) P. Bieliavsky, L. Claessens, D. Sternheimer, and Y. Voglaire; *Quantized anti de Sitter spaces and non-formal deformation quantizations of symplectic symmetric spaces*, pp. 1–24 in "Poisson Geometry in Mathematics and Physics" (edited by G. Dito, J-H. Lu, Y. Maeda and A. Weinstein) Contemporary Mathematics vol. 450, American Math. Soc., Providence, 2008. arXiv:0705.4179.
- 28) Pierre Bieliavsky; *Non-formal deformation quantizations of solvable Ricci-type symplectic symmetric spaces*, arXiv:0711.4002. Proceedings of the workshop 'Non-Commutative Geometry and Physics', Orsay 2007. J. Phys.: Conf. Ser. 103 (2008).
- 29) Bieliavsky, Pierre *Deformation quantisation and symmetric spaces: an introduction*. Contemporary problems in mathematical physics, 335, Int. Chair Math. Phys. Appl. (ICMPA-UNESCO Chairs), Cotonou, 2008.
- 30) P. Bieliavsky, S. Detournay, Ph. Spindel. *The quantizations of the hyperbolic plane*. Comm. Math. Phys. 289 (2009), no. 2, 529–559.
- 31) Bieliavsky, Pierre; Guraev, Razvan; Rivasseau, Vincent *Noncommutative field theory on rank one symmetric spaces*. J. Noncommut. Geom. 3 (2009), no. 1, 99–123.
- 32) P. Bieliavsky; *Non-formal deformation quantization and symmetric spaces*, XXVIII Workshop on Geometric Methods in Physics, AIP Conference Proceedings, vol. 1191. (2010).
- 33) Pierre Bieliavsky, Axel de Goursac, Gijs Tuynman; *Deformation Quantization for Heisenberg Supergroup*. Journal of Functional Analysis, Volume 263, issue 3 (August 1, 2012), p. 549-603.
- 34) Wolfgang Bertram, Pierre Bieliavsky; *Homotopes of Symmetric Spaces II. Structure Variety and Classification* arXiv:1011.3161, to appear in Journal of Generalized Lie Theory and Applications, 2014.
- 35) Wolfgang Bertram, Pierre Bieliavsky; *Homotopes of Symmetric Spaces I. Construction by Algebras with Two Involutions* arXiv:1011.2923, to appear in Journal of Generalized Lie Theory and Applications, 2014.
- 36) Nestor Anzola Kibamba, Pierre Bieliavsky *Bargmann-Fock realization of the noncommutative torus*, arXiv:1311.0481, Geom. Methods Phys. XXXII Workshop Bialowieza (2013) 3-12, Trends in Mathematics. Birkhauser 2014.

- 37) Pierre Beliaevsky, Axel de Goursac, Florian Spinnler, *Non-formal deformation quantization and star-exponential of the Poincare Group*, arXiv:1311.2339 Geom. Methods Phys. XXXI Workshop Bialowieza (2012) 3-12, Trends in Mathematics. Birkhauser 2013.
- 38) Pierre Beliaevsky, Victor Gayral, Axel de Goursac, Florian Spinnler, *Harmonic analysis on homogeneous complex bounded domains and noncommutative geometry*, arXiv:1311.1871, "Current Developments and Retrospectives in Lie Theory: Geometric and Analytical Methods" (editors: G. Mason, I. Penkov, J. A. Wolf), Springer 2014.

Submitted

- 39) Mélanie Bertelson, Pierre Beliaevsky; *Affine connections and symmetry jets*; arXiv:1103.2300

Books

- 1) Beliaevsky, Pierre; Gayral, Victor; *Deformation Quantization for Actions of Kählerian Lie Groups* arXiv:1109.3419. To appear in the Memoirs of the American Mathematical Society 2014.
- In preparation: *Symmetric spaces and an approach to non-formal Deformation Quantization*, book project for Mathematical Physics Studies, Springer, Series Editors: Dito, G., Frenkel, E., Gukov, S., Kawahigashi, Y., Kontsevich, M., Landsman, N.P. ISSN: 0921-3767.