

## CURRICULUM VITAE

## CLAUDIO GORODSKI

**Personal Data**

Born: on 11/09/1965 in São Paulo, Brazil  
 Marital status: married to Nilsa Areán García, one son  
 Citizenship: Brazilian  
 Contact address: IME-USP  
 Rua do Matão, 1010  
 São Paulo, SP 05508-090, Brazil  
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 E-mail: gorodski@ime.usp.br  
 URL: <http://www.ime.usp.br/~gorodski>  
 Languages spoken: Portuguese, English, French, German, Italian, Spanish

**Academic Degrees**

*March 1983 – December 1985* *Bacharelado*, Univ. of São Paulo.  
*March 1986 – July 1988* *Mestrado*, Univ. of São Paulo.  
*August 1988 – May 1992* Ph. D., UC Berkeley, title of dissertation: “Closed Minimal Hypersurfaces in Compact Symmetric Spaces”, adviser: Prof. Wu-Yi Hsiang.  
*August 1998* *Livre-Docência* at the Department of Mathematics at Univ. of São Paulo.

**Academic Employment**

*March 1986 – July 1988* *Auxiliar de Ensino*, Univ. of São Paulo  
*August 1988 – May 1992* *Professor Assistente*, Univ. of São Paulo  
*May 1992 – August 1998* *Professor Assistente Doutor*, Univ. of São Paulo  
*August 1998 – September 2005* *Professor Associado*, Univ. of São Paulo  
*September 2005 – Present* *Professor Titular*, Univ. of São Paulo

**Visiting Positions**

*August 1992 – December 1992* Research Assistant, UC Berkeley  
*January 1995 – February 1995* Guest, Univ. of Paris-Sud, Orsay  
*January 1996 – February 1996* Guest, UC Berkeley  
*January 1997* Guest, Univ. of Paris 6  
*July 1997* Guest, Univ. of Paris 6  
*October 1999 – January 2001* Humboldt Research Fellow, Univ. of Cologne  
*February 2003* Guest, NCTS, Hsinchu, Taiwan  
*February 2004* Guest, Univ. of Florence  
*September 2006* Guest, Univ. of Rome 2  
*October 2006 – January 2007* Humboldt Research Fellow, Univ. of Augsburg  
*February 2008* Research in Pairs, Mathematisches Forschungsinstitut Oberwolfach  
*August – September 2014* Guest, Ohio State Univ.

October – December 2014  
October – December 2017

Guest, Univ. of Cologne  
Guest, Univ. of Cologne

## Research Interests

Lie transformation groups in Riemannian geometry.  
Geometry of submanifolds.  
Riemannian symmetric spaces.  
Sub-Riemannian geometry.

## List of Publications

- [1] Closed minimal hypersurfaces in compact symmetric spaces. *Internat. J. Math.* **3** (1992), 629–651.
- [2] Minimal sphere bundles in Euclidean spheres. *Geom. Dedicata* **53** (1994), 75–102.
- [3] On contact sub-Riemannian symmetric spaces. *Ann. Sci. École Norm. Sup. (4)* **28** (1995), 571–589. (With E. Falbel.)
- [4] Conformal sub-Riemannian geometry in dimension 3. *Mat. Contemp.* **9** (1995), 61–73. (With E. Falbel and J. M. Veloso.)
- [5] Sub-Riemannian homogeneous spaces in dimensions 3 and 4. *Geom. Dedicata* **62** (1996), 227–252. (With E. Falbel.)
- [6] Minimal hyperspheres in rank two compact symmetric spaces. *Bol. Soc. Brasil. Mat. (N.S.)* **27** (1996) 1–22.
- [7] Holonomy of sub-Riemannian manifolds. *Internat. J. Math.* **8** (1997), 317–344. (With E. Falbel and M. Rumin.)
- [8] The classification of simply-connected contact sub-Riemannian symmetric spaces. *Pacific J. Math.* **188** (1999), 65–82. (With P. Bieliavsky and E. Falbel.)
- [9] Constant curvature 2-spheres in  $\mathbf{C}P^2$ . *Bol. Soc. Brasil. Mat. (N.S.)* **30** (1999), 287–291.
- [10] Complete minimal hypersurfaces in complex hyperbolic space. *Manuscripta Math.* **103** (2000), 221–240. (With N. Gusevskii.)
- [11] Delaunay-type surfaces in the real unimodular  $2 \times 2$  group. *Ann. Mat. Pura Appl.* **180** (2001), 211–221.
- [12] Cycles of Bott-Samelson type for taut representations. *Ann. Global Anal. Geom.* **21** (2002), 287–302. (With G. Thorbergsson.)
- [13] Variationally complete actions on compact symmetric spaces. *J. Differential Geom.* **62** (2002), 39–48. (With G. Thorbergsson.)
- [14] The classification of taut irreducible representations. *J. Reine Angew. Math.* **555** (2003), 187–235. (With G. Thorbergsson.)
- [15] Copolarity of isometric actions. *Trans. Amer. Math. Soc.* **356** (2004), 1585–1608. (With C. Olmos and R. Tojeiro.)
- [16] Polar actions on compact symmetric spaces which admit a totally geodesic principal orbit. *Geom. Dedicata* **103** (2004), 193–204.

- [17] Enlarging totally geodesic submanifolds of symmetric spaces to minimal submanifolds of one dimension higher. *Proc. Amer. Math. Soc.* **132** (2004), 2441–2447.
- [18] Minimal Legendrian submanifolds and absolutely area-minimizing cones. *Diff. Geom. Appl.* **21** (2004), 337–347. (With V. Borrelli.)
- [19] Homogeneity rank of real representations of compact Lie groups. *J. Lie Theory* **15** (2005), 63–77. (With F. Podestà.)
- [20] A survey on the geometry of isometric actions, *Mat. Contemp.* **28** (2005), 163–182.
- [21] Taut submanifolds, *Rev. Un. Mat. Argentina.* **47** (2006), 61–72.
- [22] Polar actions on compact rank one symmetric spaces are taut. *Math. Z.* **255** (2007), 335–342. (With L. Biliotti.)
- [23] Singular riemannian foliations with sections, transnormal maps and basic forms. *Ann. Global Anal. Geom.* **32** (2007), 209–223. (With M. M. Alexandrino.)
- [24] Polar orthogonal representations of real reductive algebraic groups. *J. Algebra* **320** (2008), 3036–3061. (With L. Geatti.)
- [25] Taut representations of compact simple Lie groups. *Illinois J. Math.* **52** (2008), 121–143.
- [26] The discriminants associated to isotropy representations of symmetric spaces. *Transform. Groups* **17** (2012), 143–156.
- [27] Homogeneous structures and rigidity of isoparametric submanifolds in Hilbert space. *J. Fixed Point Theory Appl.* **11** (2012), 93–136. (With E. Heintze.)
- [28] On orbit spaces of representations of compact Lie groups. *J. Reine Angew. Math.* **691** (2014), 61–100. (With A. Lytchak.)
- [29] Representations whose minimal reduction has a toric identity component. *Proc. Amer. Math. Soc.* **143** (2015), 379–386. (With A. Lytchak.)
- [30] Tight Lagrangian homology spheres in compact homogeneous Kähler manifolds. *Israel J. Math.* **206** (2015), 413–429. (With F. Podestà.)
- [31] Isometric actions on spheres with an orbifold quotient. *Math. Ann.* **365** (2016), 1041–1067. (With A. Lytchak.)
- [32] Some remarks on polar actions. *Ann. Global Anal. Geom.* **49** (2016), 43–58. (With A. Kollross.)
- [33] On homogeneous composed Clifford foliations. *Münster J. Math.* **9** (2016). (With M. Radeschi.)
- [34] Polar foliations on quaternionic projective spaces. *Tohoku Math. J.* (2017). (With M. Dominguez-Vazquez.)
- [35] Polar symplectic representations. *Algebr. Represent. Theory* **20** (2017), 751–764. (With L. Geatti.)
- [36] The curvature of orbit spaces. *Geom. Dedicata* **190** (2017), 135–142. (With A. Lytchak.)

[37] Representations with  $Sp(1)^k$ -reductions and quaternion-Kähler symmetric spaces. *Math. Z.* (2018). (With F. J. Gozzi.)

## Chapter of Book

[1] Tightness and Tautness, an appendix to “Notes on Morse Theory”, by D. V. Tausk, F. Mercuri and P. Piccione, IMPA Mathematical Publications, 23rd Brazilian Mathematics Colloquium, Rio de Janeiro, 2001.

## Other manuscripts

[1] Representations of compact Lie groups and the osculating spaces of their orbits. E-print arXiv:math/0203196v1. [math.DG] (With G. Thorbergsson.)

[2] A metric approach to representations of compact Lie groups. Mathematics Research Institute Preprint Series, Department of Mathematics, Ohio State University, 2014.

## Grants and Fellowships

*August 1988 – July 1992*

FAPESP Ph. D. Scholarship at UC Berkeley.

*March 1994 – Present*

CNPq federal research grant.

*except Aug 1999 – Jul 2001 and Sep 2006 – Jan 2007*

*1996 – 1997*

Two-year exchange program between research groups from São Paulo and Paris, supported by Univ. of São Paulo (USP) and Comité Français de la Coopération Universitaire avec le Brésil (COFECUB).

*October 1999 – January 2001*

Alexander von Humboldt Research Fellowship at Univ. of Cologne.

*November 2002 – October 2006*

Main Researcher, FAPESP Research Group Grant.

*October 2006 – January 2007*

Alexander von Humboldt Research Fellowship at Univ. of Augsburg.

*November 2007 – October 2011*

Coordinator, FAPESP Research Group Grant.

*April 2012 – March 2017*

Main Researcher, FAPESP Research Group Grant.

*July 2017 – June 2022*

Main Researcher, FAPESP Research Group Grant.

## Selected Talks

*July 1993*

XIX Colóquio Brasileiro de Matemática, IMPA, Brazil

*July 1994*

IX Escola de Geometria Diferencial, UFES, Vitória, Brazil

*February 1995*

Groupe de Travail en Géométrie Non-Holonome, ENS, Paris

*February 1995*

Séminaire de Topologie, Univ. of Paris-Sud

*February 1995*

Séminaire de Géométrie Riemannienne, Univ. of Grenoble

*July 1995*

XX Colóquio Brasileiro de Matemática, IMPA, Brazil

*January 1996*

Seminar on Geometry and Dynamics, UC Santa Cruz

*February 1996*

Workshop on Lie Groups, Lie Algebras and Their Representations, UC Berkeley

*February 1996*

Colloquium, Oregon State Univ.

*February 1996*

Differential Geometry Seminar, UC Berkeley

*July 1996*

X Escola de Geometria Diferencial, IMPA, Brazil

*January 1997*

Séminaire de Géométrie Appliquée, Univ. of Paris 6 et 7

<i>January 1997</i>	Séminaire de Topologie, Univ. of Paris-Sud
<i>September 1997</i>	International Colloquium in Sub-Riemannian Geometry, Univ. of São Paulo
<i>May 1998</i>	Conference on Lie Transformation Groups, Trento, Italy
<i>August 1998</i>	International Congress of Mathematicians, Berlin
<i>September 1998</i>	Oberseminar über Geometrie, Univ. of Cologne
<i>October 1999</i>	Oberseminar über Geometrie, Univ. of Cologne
<i>March 2000</i>	Séminaire de Géométrie Appliquée, Université de Paris 6 et 7
<i>March 2000</i>	Séminaire de Topologie, Université de Paris-Sud
<i>March 2000</i>	Séminaire de Géométrie, Université de Lyon 1
<i>April 2000</i>	Workshop on Harmonic Maps and Curvature Properties of Submanifolds, 2, Univ. of Leeds, England
<i>May 2000</i>	Geometria em Lisboa, Instituto Superior Técnico, Lisbon
<i>May 2000</i>	Oberseminar Differentialgeometrie, Univ. of Cologne
<i>June 2000</i>	Séminaire d'Analyse Harmonique, Univ. of Nancy, France
<i>September 2000</i>	International Conference on Differential Geometry in the Memory of Alfred Gray, Bilbao, Spain
<i>October 2000</i>	Oberseminar Differentialgeometrie, Univ. of Bonn
<i>July 2001</i>	XXIII Colóquio Brasileiro de Matemática, IMPA, Brazil
<i>August 2001</i>	Encontro de Geometria e Topologia, Unicamp, Brazil
<i>August 2001</i>	Seminário de Topologia, UFF, Niterói, Brazil
<i>February 2002</i>	Jornada de Geometria, UFF, Niterói, Brazil
<i>July 2002</i>	XII Escola de Geometria Diferencial, UFG, Goiânia, Brazil
<i>August 2002</i>	International Congress of Mathematicians, Beijing, China
<i>November 2002</i>	Seminário de Geometria, PUC, Rio de Janeiro, Brazil
<i>February 2003</i>	Mini-course on Lie groups, NCTS, Hsinchu, Taiwan
<i>June 2003</i>	Encuentro de Geometría Diferencial, Univ. of Córdoba, Argentina
<i>July 2003</i>	Oberseminar Geometrie, Topologie und Analysis, Univ. of Cologne
<i>August 2003</i>	Colloquium, PUC, Rio de Janeiro, Brazil
<i>October 2003</i>	Colloquium, USP, São Paulo, Brazil
<i>July 2004</i>	XIII School of Differential Geometry, USP, São Paulo, Brazil
<i>February 2005</i>	Summer School, UnB, Brasília, Brazil
<i>February 2005</i>	Workshop on Chaotic Dynamics and Differential Geometry, UFBA, Salvador, Brazil
<i>June 2005</i>	II Encuentro de Geometría Diferencial, Univ. of Córdoba, Argentina
<i>August 2005</i>	Differential Geometry and Physics, Eötvös Loránd University, Budapest, Hungary
<i>February 2006</i>	Encontro Paulista de Geometria, USP, São Paulo, Brazil
<i>June 2006</i>	I Congresso Latino-Americano de Grupos de Lie em Geometria, Unicamp, Campinas, Brazil
<i>August 2006</i>	International Congress of Mathematicians, Madrid, Spain
<i>September 2006</i>	Complex Analysis Seminar, Università degli Studi di Roma "Tor Vergata"
<i>September 2006</i>	Seminario di Geometria Differenziale, Università degli Studi di Torino
<i>October 2006</i>	Oberseminar Differentialgeometrie, University of Augsburg

<i>November 2006</i>	Seminar Sophus Lie, Erwin Schrödinger Institut, Wien
<i>November 2006</i>	Geometry Seminar, Universität Wien
<i>January 2007</i>	Oberseminar Differentialgeometrie, University of Augsburg
<i>August 2007</i>	XXVI Colóquio Brasileiro de Matemática, IMPA, Brazil
<i>August 2007</i>	III Encuentro de Geometría Diferencial, Univ. of Córdoba, Argentina
<i>November 2007</i>	VII Semana de Matemática, Universidade Federal de Uberlândia, Brazil
<i>June 2008</i>	AMS-SBM First Joint Meeting, IMPA, Brazil
<i>July 2008</i>	XV Escola de Geometria Diferencial, UFC, Fortaleza, Brazil
<i>February 2009</i>	Oberseminar Differentialgeometrie, University of Augsburg
<i>August 2009</i>	International Symposium in Differential Geometry in honour of Prof. Marcos Dajczer, IMPA, Brazil
<i>August 2009</i>	IV Encuentro de Geometría Diferencial, Univ. of Córdoba, Argentina
<i>August 2010</i>	International Congress of Mathematicians, Hyderabad, Índia
<i>September 2010</i>	Seminário de Geometria Diferencial, Univ. de Brasília
<i>January 2011</i>	Oberseminar Differentialgeometrie, Univ. of Münster
<i>July 2012</i>	XVII Escola de Geometria Diferencial, Manaus, Brazil
<i>August 2012</i>	4th Latin American Conference on Lie Groups and Geometry, CIMAT, Guanajuato, Mexico
<i>September 2012</i>	Seminário de Geometria Diferencial, IMPA, Rio de Janeiro
<i>February 2013</i>	6th OCAMI-KNUGRG Joint Differential Geometry Workshop in Symmetric Spaces and Lie Theory in Finite and Infinite Dimensions, Osaka City University
<i>February 2013</i>	Kagurazaka Geometry Seminar, Tokyo University of Science
<i>February 2013</i>	Oberseminar Differentialgeometrie, Univ. of Augsburg
<i>June 2013</i>	Encounters in Geometry, Cabo Frio, Rio de Janeiro
<i>August 2013</i>	Colloquium, Department of Applied Mathematics, USP
<i>September 2013</i>	Seminário de Geometria Diferencial, Univ. de Brasília
<i>August 2014</i>	Mini-course on representations of compact Lie groups, Ohio State Univ.
<i>September 2014</i>	Colloquium, Ball State University, Muncie, Indiana
<i>September 2014</i>	Geometry Seminar, Indiana University, Bloomington
<i>September 2014</i>	Felix Klein Seminar, Notre Dame University, Southbend
<i>November 2014</i>	Thematic Day on Riemannian and Sub-Riemannian geometry on Lie groups and Homogeneous Spaces, Institut Henri Poincaré
<i>January 2015</i>	Oberseminar, Karlsruher Institut für Technologie
<i>January 2015</i>	Oberseminar, Universität Stuttgart
<i>August 2015</i>	IV School and Workshop on Lie Group Theory, Unicamp, Campinas, Brazil
<i>December 2015</i>	First Joint Meeting Brazil-Spain in Mathematics, UFC, Fortaleza, Brazil
<i>January 2016</i>	Mini-course on representations of compact Lie groups, King's College London
<i>January 2016</i>	Oberseminar Differentialgeometrie, Univ. of Cologne
<i>September 2016</i>	First Joint Meeting Brazil-Italy in Mathematics, IMPA, Rio de Janeiro
<i>November 2016</i>	Geometry and Lie theory, NTNU, Trondheim, Norway

September 2017  
December 2017

Meeting in Differential Geometry, Porto Alegre, Brazil  
Research seminars Analysis & Geometry and Dynamical Systems & Mathematical Physics, University of Jena, Germany

## Graduate Students

May 1998  
March 2000  
February 2006  
October 2006  
February 2008  
March 2008  
  
April 2012  
April 2012  
June 2012  
  
May 2017  
August 2017

Daniel V. Tausk, *Mestrado* (Master), Univ. of São Paulo  
Dulce M. de Almeida, *Doutorado* (Ph. D.), Univ. of São Paulo  
Eliza Ramos de Andrade, *Mestrado*, Univ. of São Paulo  
Henrique de Andrade Gomes, *Mestrado*, Univ. of São Paulo  
Marco Antonio Mucha Orco, *Mestrado*, Univ. of São Paulo  
Jaime Leonardo Orjuela Chamorro, *Mestrado*, Univ. of São Paulo  
Paulo  
Lucas Kaufmann Sacchetto, *Mestrado*, Univ. of São Paulo  
Marco Antonio Mucha Orco, *Doutorado*, Univ. of São Paulo  
Jaime Leonardo Orjuela Chamorro, *Doutorado*, Univ. of São Paulo  
Paulo  
Julia Carolina Torres Lozano, *Mestrado*, Univ. of São Paulo  
Artur Bicalho Saturnino, *Mestrado*, Univ. of São Paulo

## Post-doctoral researchers mentored

March – July 2011 Stefano Nardulli  
September 2011 – March 2013 Andrew James Clarke  
February 2015 – January 2018 Pedro Zühlke  
March 2015 – January 2018 Francisco J. Gozzi

## Editorial Work

March 2013 – April 2018 Associate Editor, São Paulo Journal of Mathematical Sciences  
May 2018 – April 2022 Editor-in-Chief, São Paulo Journal of Mathematical Sciences

## Other Activities

February 1995 – Present Reviewer for *Mathematical Reviews*.  
September 1-5, 1997 Local organization and scientific committee of the *International Colloquium in Sub-Riemannian Geometry*, USP, São Paulo (exchange program USP-COFECUB).  
  
July 26-30, 2004 Local organization and scientific committee of the *XIII School of Differential Geometry*, USP, São Paulo.  
February 13-15, 2006 Local organization and scientific committee of the *Encontro Paulista de Geometria*, USP, São Paulo.  
June 5-9, 2006 Scientific committee of the *I Congresso Latino-Americano de Grupos de Lie em Geometria*, Unicamp, Campinas.  
July 14-18, 2008 Scientific committee of the *XV School of Differential Geometry*, UFC, Fortaleza.  
August 8-12, 2011 Local organization and scientific committee of the *III Encontro Paulista de Geometria*, USP, São Paulo.  
May 4-8, 2015 Local organization and scientific committee of the *First Joint Meeting of Mathematicians Ohio State University – University of São Paulo*, USP, São Paulo.

*July 23-27, 2018*

Local organization and scientific committee of *ICM 2018  
Satellite Conference: Modern Trends in Differential Geom-  
etry* – *University of São Paulo, USP, São Paulo.*