

Personal data

Name Alexander Quaas

Date of birth 07/24/1974

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Departamento de Matemática Universidad Santa María
Av. España 1680 V-110 Valparaíso, Chile

Education

- 2003: Doctor en Cs. de la Ingeniería, mención modelación Matemática, Universidad de Chile.
- 2003: Docteur en Mathématiques Appliquées, Université Paris Dauphine.
- 1999: Mathematical Engineer, Universidad de Chile.

Fellowships and distinctions

- Fellowship CONICYT (2000-2003) Chilean PhD program.
 - CROUS fellowship (French government), programme cotutelle (Doctorat).
 - Outstanding student of the School of Engineering, University of Chile 1996 and 1997.
 - Best Ph. D in all fields years 2003 to 2006, 2007, Awarded by the Chilean Academy of Sciences.
 - Invitation by The Academy of Science for the Developing Country to with a plenary talk in the
- “8th Regional Conference of Young Scientists of TWAS –ROLAC, Brazilian Academy of Sciences, Rio de Janeiro, Brasil, November -December 2010.

Positions

•2016-present: Full Professor, Universidad Técnica Federico Santa María, Valparaíso, Chile.

•2008-2015: Associate Professor, Universidad Técnica Federico Santa María, Valparaíso, Chile.

•2004-2008: Assistance Professor, Universidad Técnica Federico Santa María, Valparaíso, Chile.

Administrative experience

•2007-2010: Director of Mathematical Engineer program.

•2008-2010: Responsible of the Basal research project of the AM2V Group: <http://www.am2v.cl/> •2010-2012: General Director of Research and Graduate Studies, Universidad Técnica Federico Santa María.

•2011-2013: Responsible of the mathematical committee of Conicyt grants for all programs of Advanced Human Capital.

•2013-2022: Director of the PhD program in Mathematics, UTFSM.

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Direction of theses

•2011: Direction of Engineering theses - UTFSM, Rodrigo Meneses.

•2011: Direction of Master theses – UTFSM, Osiris González .

•2016: Aliang Xia, Ph.D in Mathematics, UTFSM.

•2018: Andrei Rodriguez , Ph.D in Mathematics, UTFSM.

•2018-2021: Lisbeth Carrero , current Ph.D in Mathematics, UTFSM.

Publications

1. J. Busca, A. Quaas, "Qualitative Properties for Semilinear Elliptic Systems with Non-Lipschitz Nonlinearity", *Nonlinear Analysis TMA*, 50 3 ,299-312,2002
2. P. Felmer, A. Quaas, "On The Strong Maximum Principle for Quasilinear Elliptic Equations and Systems", *Advances Differential Equation*, 7 1, 25-46, 2002
3. Patricio Felmer, Alexander Quaas:" *Critical Exponents for Pucci's Extremal Operators*", *C.R. Acad. Sci. Paris (I)* 335 (2002) 909-914 .
4. Patricio Felmer, Alexander Quaas:" *On Critical Exponents for Pucci's Extremal Operators*", *Ann. Inst. Henri Poincaré, Analyse non linéaire*, 20, 5, 2003, 843-865.
5. Patricio Felmer ,Alexander Quaas:" *Positive Radial Solutions to a 'semilinear' equation involving the Pucci's operator "*, *J. Differential Equation* 199, 2 (2004), 376-393.
6. Alexander Quaas:" *Existence of Positive Solutions to a 'semilinear' equation involving the Pucci's operator in a convex domain "*, *Differential Integral Equation*, 17 , 5-6 (2004), 481-494.
7. Jerome Busca, Maria Esteban, Alexander Quaas: " *Nonlinear Eigenvalues and Bifurcation problems for Pucci's Operator*", *Ann. Inst. Henri Poincaré, Analyse nonlinéaire* 22 2 (2005), 187-206.
8. A. Quaas, B. Sirakov, *On the principal eigenvalues and the Dirichlet problem for fully nonlinear operators* ,*Comptes Rendus Mathematique*, Volume 342, Issue 2, 15 January 2006, Pages 115-118.
9. P. Felmer, A. Quaas, *Critical exponents for uniformly elliptic extremal operators*, *Indiana Univ. Math Journal* 55 (2006), no. 2, 593—629.
10. P. Felmer, A. Quaas, M. Tang, *On uniqueness for nonlinear elliptic equation involving the Pucci's extremal operator*, *Journal of Diff. Equation* 226 (2006), no. 1, 80—98 .
11. A. Quaas, B. Sirakov, *Existence results for nonproper elliptic equation involving the Pucci's Operator*, *Comm. in Part. Diff. Equation* 31 (2006), no. 7-9, 987—1003.
13. .M. Esteban, P. Felmer, A. Quaas, *Large critical exponents for some second order uniformly elliptic operators*, *Comm. in Part. Diff. Equation.*, Volume 32, (2007),no. 4 , 543 – 556 .
13. A. Quaas, B. Sirakov, *Principal eigenvalues and the Dirichlet problem for fully nonlinear operators*, *Adv. in Mathematics*, Volume 218, Issue 1, 1 May 2008, Pages 105-135.

14. Patricio Felmer, Alexander Quaas, Moxun Tang, Jianshe Yu, Monotonicity properties for ground states of the scalar field equation, *Ann. Inst. Henri Poincare, Analyse non lineaire*. Volume 25, Issue 1, January-February 2008, Pages 105-119.
15. A. Quaas, B. Sirakov, Solvability of monotone systems of fully nonlinear elliptic PDEs, *Comptes Rendus Mathematique*, Vol. 346; pp. 641-644; 2008 .
16. P. Felmer, A. Quaas, Fundamental solutions and two properties of elliptic maximal and minimal operators, *Trans. Amer. Math. Soc.* Vol. 361; pp. 5721-5736; 2009.
17. P. Felmer, M. Montenegro, A. Quaas. A note on the Strong Maximum Principle and the Compact Support Principle, *Journal of Diff. Equation* Vol. 246; pp. 39-49; 2009 .
18. Dávila, Gonzalo; Felmer, Patricio; Quaas, Alexander Alexandroff-Bakelman-Pucci estimate for singular or degenerate fully nonlinear elliptic equations. *C.R. Math. Acad. Sci. Paris* 347 (2009) Na19-20, 1165-1168.
19. P. Felmer, A. Quaas, M. Tang. On the complex structure of positive solutions to Matukuma- type equations, *Ann. Inst. Henri Poincare, Analyse non lineaire*. Vol. 26; pp. 869-887; 2009.
20. A. Quaas, B. Sirakov, Existence and non-existence results for fully nonlinear elliptic systems. *Indiana University Mathematics Journal*; Vol. 58 No 2; pp. 751-788; 2009 .
21. P. Felmer, A. Quaas, M. Tang, J. Yu, Random dynamics of gene transcription activation in single cells, *Journal of Differential Equations*, Volume 247, Issue 6, 15 September 2009, Pages 1796-1816.
22. Esteban, P. Felmer, A. Quaas, Super-linear elliptic equation for the Pucci operator without growth restrictions for the data, *Proceedings of the Royal Society of Edinburgh: Section A Mathematics* 53 (2010), 125-141.
22. M. Esteban, P. Felmer, A. Quaas. Eigenvalues for Radially Symmetric Fully Nonlinear Operators. *Communications in Partial Differential Equations* 35 (2010) Na9 1716-1737 .
24. G. Davila, P. Felmer, A. Quaas. Harnack inequality for singular fully nonlinear operators and some existence results . *Calculus of Variations and PDE* 39 (2010)3-4, 557-578.
25. Salomón Alarcón, Alexander Quaas. Large number of fast decay ground states to Matukuma-type equations, *Journal of Differential Equations*. 248 (2010), 866-892.
26. P. Felmer, A. Quaas, J. Tan. Geometry of phase plane and radial solutions for nonlinear elliptic equations with extremal operators. *Journal Mathematical Analysis Application*, 366, (2010) 1, 101-111.

27. P. Felmer, A. Quaas, B. Sirakov, Resonance phenomena for second-order stochastic control equations. *SIAM J. on Mathematical Analysis* 42 (2010) 3, 997-1024.
28. P. Felmer, A. Quaas, B. Sirakov, Landesman-Lazer type results for second order Hamilton- Jacobi-Bellman equations. *J. of Functional Analysis* 258 (2010), 4154-4182.
29. R. Meneses, A. Quaas. Fujita type exponent for fully nonlinear parabolic equations and existence results. *J. Math. Appl.* 376 (2011)No2, 514-527.
30. A. Allendes A. Quaas, A. Allendes. Multiplicity results for extremal operators through bifur- cation, *Discrete Continuous Dynamical Systems* 29 (2011) 51-65.
31. Felmer, Patricio; Quaas, Alexander, Fundamental solutions for a class of Isaacs integral operators. *Discrete Contin. Dyn. Syst.* 30 (2011), no. 2, 493–508.
32. Felmer, Patricio; Quaas, Alexander, Fundamental solutions and Liouville type theorems for nonlinear integral operators. *Adv. Math.* 226 (2011), no. 3, 2712–2738.
33. Alarcón, Salomón; García-Melián, Jorge; Quaas, Alexander, Keller-Osserman type conditions for some elliptic problems with gradient terms. *J. Differential Equations* 252 (2012), no. 2, 886–914.
34. Alarcón, Salomón; Iturriaga, Leonelo; Quaas, Alexander, Existence and multiplicity results for Pucci's operators involving nonlinearities with zeros, to appear *Calculus of. Var. and PDEs* 45 (2012), 443-454.
35. Alarcón, Salomón; García-Melián, Jorge; Quaas, Alexander, Existence and uniqueness of solutions to nonlinear elliptic equations without growth conditions at infinity, *Journal d'Analyse Mathématique* 118 (2012) 83-104
36. Felmer, Patricio; Quaas, Alexander, Boundary blow up solutions for fractional elliptic equations. *Asymptotic Analysis* 78 (2012) 123–144.
37. P. Felmer, A. Quaas, J. Tan, Positive solutions of nonlinear Schrödinger equation with the fractional Laplacian, to appear *Proceedings of the Royal Society of Edinburgh: Section A Mathematics*, 142 (2012) 1-26.
38. P. Felmer, A. Quaas, B. Sirakov. Existence and regularity results for fully nonlinear equations with singularities. *Math. Annalen* (2012) 354, 377-400
39. Meneses, Rodrigo; Quaas, Alexander, Existence and non-existence of global solutions or uniformly parabolic equations, *Journal of Evolution Equations* 12 (2012), no. 4, 943-955.
40. Alarcón, Salomón; García-Melián, Jorge; Quaas, Alexander, Nonexistence of positive supersolutions to some nonlinear elliptic problems, *Journal Mathematiques Pures Appliquees* V 99, 5, (2013), 618–634.

41. P. Felmer, A. Quaas, B. Sirakov, Solvability of nonlinear elliptic equations with gradient terms, *J. Differential Equations* 254 (2013), 11, 4327–4346.
42. Alarcón, Salomón; Quaas, Alexander, Large viscosity solutions for some fully nonlinear equations, *Nonlinear Differential Equations and Applications NoDEA*. 20 (2013), 1453-1472
43. S. Alarcón, J. García-Melian, A. Quaas, Liouville type theorems for elliptic equations with gradient terms, *Milan Journal of Mathematics* 81 (2013), no. 1, 171–185.
44. S. Alarcón, J. García-Melián, A. Quaas, Existence and non-existence of solutions to elliptic equations with a general convection term, *Proceedings of the Royal Society of Edinburgh: Section A Mathematics* 144 (2014), 225-239.
- 45 A. Quaas, A, Xia, Liouville type theorems for nonlinear elliptic equations and systems involving fractional Laplacian in the half space, *Calculus of Variations and PDE* 52, 3-4, (2015) 641-659.
46. H. Chen, P. Felmer, A. Quaas, Large solutions to elliptic equations involving fractional Laplacian, *Ann. Inst. Henri Poincaré, Analyse non lineaire*, Volume 32, Issue 6, November–December 2015, Pages 1199–1228.
47. H. Chen, P. Felmer, A. Quaas, Self-generated interior blow-up solutions in fractional elliptic equation with absorption, *Differential Integral Equation* Volume 28, Number 9/10 (2015), 839-860.
- 48 .S. Alarcón, M. Burgos-Pérez, J. García-Melián, A. Quaas, Nonexistence results for elliptic equations with gradient terms, *Journal of Differential Equations* 260 (2016), no. 1, 758–780.
49. S. Alarcón, J. García-Melian, A. Quaas, Optimal Liouville Theorems for supersolution of elliptic equation with the Laplacian, *Annali della Scuola Normale Superiore di Pisa Cl. Sci. (5) Vol. XVI* (2016), 129-158
50. A. Quaas, A, Xia, Multiple positive solutions for nonlinear critical fractional elliptic equations involving sign-changing weight functions, *Zeitschrift fuer Angewandte Mathematik und Physik* (2016) 67:40 2016 Springer International Publishing DOI 10.1007/s00033-016-0631-5
51. A. Quaas, A, Xia, A Liouville type theorem for Lane-Emden systems involving the fractional Laplacian, *Nonlinearity* 29 (2016) 2279–2297
52. S. Alarcón, M. Burgos-Pérez, J. García-Melián, A. Quaas, Classification of supersolutions and Liouville theorems for some nonlinear elliptic problem, *Discrete and Continuous Dynamical System - A* Volume 36, Number 9, September 2016 pp. 4703–4721 .

53. J. García-Melián Alexander Quaas- Boyan Sirakov, *Elliptic Equation with absorption in the half space*, *Bull Braz Math Soc, New Series* 2016, *Sociedade Brasileira de Matemática*, 47(3), 811-821.
54. A. Quaas, A, Xia, *A Liouville type theorem for Lane-Emden systems involving the fractional Laplacian*, *Nonlinearity* 29 (2016) 2279-2297.
55. Leandro M. Del Pezzo and Alexander Quaas, *A Hopf's lemma and a strong minimum principle for the fractional p - Laplacian*, *Journal of Differential Equations*, Volume 263, Issue 1, 5 July 2017, Pages 765–778.
56. Leandro M. Del Pezzo and Alexander Quaas, *Non-resonant Fredholm alternative and anti-maximum principle for the fractional p -Laplacian*, *Journal of Fixed Point Theory and Applications* March 2017, Volume 19, Issue 1, pp 939–958.
57. B. Barrios, L. Del Pezzo, J. García-Melián, A. Quaas, *Monotonicity of solutions for some nonlocal elliptic problems in half-spaces*, *Calculus of Variations and Partial Differential Equations*, April 2017, 56:39.
58. A. Quaas, A, Xia, *Existence and uniqueness of positive solutions for a class of logistic type elliptic equations in \mathbb{R}^N involving fractional Laplacian*, 2017 DCDS-A 37 2653 - 2668.
59. *On critical exponents for Lane–Emden–Fowler-type equations with a singular extremal operator*, *Annali di Matematica Pura ed Applicata (1923 -)* April 2017, Volume 196, Issue 2, pp 599–615.
60. Barrios, Begoña; Del Pezzo, Leandro; García-Melián, Jorge; Quaas, Alexander *A Liouville theorem for indefinite fractional diffusion equations and its application to existence of solutions*. *Discrete Contin. Dyn. Syst.* 37 (2017), no. 11, 5731–5746
- 61 Dávila, Gonzalo; Quaas, Alexander; Topp, Erwin *Continuous viscosity solutions for nonlocal Dirchlet problems with coercive gradient terms*. *Math. Ann.* 369 (2017), no. 3-4, 1211–1236.
62. Quaas, Alexander; Topp, Erwin; *Existence and uniqueness of large solutions for a class of non-uniformly elliptic semilinear equations*. *J. Anal. Math.* 136 (2018), no. 1, 341–355.
63. Barrios, B.; Del Pezzo, L.; García-Melián, J.; Quaas, A.; *Symmetry results in the half-space for a semi-linear fractional Laplace equation*. *Ann. Mat. Pura Appl.* (4) 197 (2018), no. 5, 1385–1416.
64. Quaas, Alexander; Rodríguez, Andrei; *Analysis of the attainment of boundary conditions for a nonlocal diffusive Hamilton-Jacobi equation*. *Discrete Contin. Dyn. Syst.* 38 (2018), no. 10, 5221–5243.

65. Chen, Huyuan; Quaas, Alexander; Classification of isolated singularities of nonnegative solutions to fractional semi-linear elliptic equations and the existence results. *J. Lond. Math. Soc. (2)* 97 (2018), no. 2, 196–221.
66. Quaas, Alexander; Xia, Aliang; Existence results of positive solutions for nonlinear cooperative elliptic systems involving fractional Laplacian. *Commun. Contemp. Math.* 20 (2018), no. 3, 175-0032, 22 pp.
67. Barrios, Begoña; Del Pezzo, Leandro; García-Melián, Jorge; Quaas, Alexander A priori bounds and existence of solutions for some nonlocal elliptic problems. *Rev. Mat. Iberoam.* 34 (2018), no. 1, 195–220.
68. Quaas, Alexander; Rodríguez, Andrei; Loss of boundary conditions for fully nonlinear parabolic equations with superquadratic gradient terms. *J. Differential Equations* 264 (2018), no. 4, 2897–2935.
69. Dávila, Gonzalo; Quaas, Alexander; Topp, Erwin; An ODE approach for fractional Dirichlet problems with gradient nonlinearity. *Math. Z.* 291 (2019), no. 1-2, 85–111.
70. García-Melián, Jorge; Iturriaga, Leonelo; Quaas, Alexander; Liouville theorems for radial solutions of semilinear elliptic equations. *Complex Var. Elliptic Equ.* 64 (2019), no. 6, 933–949.
71. Dávila, Gonzalo; Quaas, Alexander; Topp, Erwin; Existence, nonexistence and multiplicity results for nonlocal Dirichlet problems. *J. Differential Equations* 266 (2019), no. 9, 5971–5997.
72. García-Melián, Jorge; Quaas, Alexander; Sirakov, Boyan Liouville theorems for nonlinear elliptic equations in half-spaces. *J. Anal. Math.* 139 (2019), no. 2, 559–583.
73. Barrios, B.; García-Melián, J.; Quaas, A. Periodic solutions for the one-dimensional fractional Laplacian. *J. Differential Equations* 267 (2019), no. 9, 5258–5289.
74. Barrios, B.; García-Melián, J.; Quaas, A. A note on the monotonicity of solutions for fractional equations in half-spaces. *Proc. Amer. Math. Soc.* 147 (2019), no. 7, 3011–3019.
75. Burgos-Pérez, M. Á.; García-Melián, J.; Quaas, A. Some nonexistence theorems for semilinear fourth-order equations. *Proc. Roy. Soc. Edinburgh Sect. A* 149 (2019), no. 3, 761–779. 35J30
76. Chen, Huyuan; Quaas, Alexander; Zhou, Feng Solutions of nonhomogeneous equations involving Hardy potentials with singularities on the boundary. *Pure Appl. Funct. Anal.* 5 (2020), no. 4, 899–924.

77. Quaas, Alexander; Salort, Ariel; Xia, Aliang *Principal eigenvalues of fully nonlinear integro-differential elliptic equations with a drift term. ESAIM Control Optim. Calc. Var.* 26 (2020), Paper No. 36, 19 pp.

78. Barrios, B.; Quaas, A. *The sharp exponent in the study of the nonlocal Hénon equation in \mathbb{R}^N : a Liouville theorem and an existence result. Calc. Var. Partial Differential Equations* 59 (2020), no. 4, Paper No. 114, 22 pp.

79. Del Pezzo, Leandro M.; Quaas, Alexander *Spectrum of the fractional p -Laplacian in \mathbb{R}^N and decay estimate for positive solutions of a Schrödinger equation. Nonlinear Anal.* 193 (2020),

80. Chen, Huyuan; Quaas, Alexander; Zhou, Feng *On nonhomogeneous elliptic equations with the Hardy-Leray potentials. J. Anal. Math.* 144 (2021), no. 1, 305–334.

81. Barles, Guy; Quaas, Alexander; Rodríguez-Paredes, Andrei *Large-time behavior of unbounded solutions of viscous Hamilton-Jacobi equations in \mathbb{R}^N . Comm. Partial Differential Equations* 46 (2021), no. 3, 547–572.

Other Publication

1. Felmer, A. Quaas. *Around Viscosity Solutions for a class of Superlinear Second Order Elliptic Differential Equations.*: "On the notions of solutions to nonlinear elliptic problems: results and developments", Quaderni di Matematica, publication of the Department of Mathematics of the Seconda Università di Napoli, Caserta (2008)205-228.

2. P. Felmer, A. Quaas, *Some Recent Results on Equation Involving the Pucci's Extremal Operators* 263-281: *Contributions to Nonlinear Analysis: A Tribute to D.G. de Figueiredo on the Occasion of his 70th Birthday*, Progress in Nonlinear Differential Equations and Their Applications, Birkhauser; 1 edition (December 7, 2006).

Talks

1. A. Quaas, "Strong Maximum Principle and Compact Support for Quasilinear Elliptic Equation and Systems", Workshop Chile-USA, "Nonlinear Analysis", Valparaíso, Chile, Enero 2000.
2. A. Quaas, "Strong Maximum Principle and Compact Support for Quasilinear Elliptic Equation and Systems", Encuentro nacional de la Sociedad de Matemáticas 2001, Talca, Chile.
3. A. Quaas, "Critical exponent and existence result for the Pucci's extremal Operator", XIII Escuela Latinoamericana de Matemáticas, Cartagena, Colombia, Agosto 2002.
4. A. Quaas, "Eigenvalue problems for fully nonlinear elliptic equation", Encuentro de la Sociedad de Matemática, Olmué, Chile, Octubre 2004.
5. A. Quaas, "Principal eigenvalues and the Dirichlet problem for fully nonlinear operators", Topological and Variational Methods in Partial Differential Equations, Guanajuato, Mexico. Diciembre 2005.
6. A. Quaas, "Critical exponents for uniformly elliptic extremal operators", COMCA 2006, Universidad de La Serena, La Serena, Chile. Agosto 2006.
7. A. Quaas, "Compacidad, Puntos Fijos y Exponentes Críticos", Puerto Matemático, septiembre 2006.
8. A. Quaas, "Monotonicity properties for ground states of the scalar field equation", IV Workshop Geometría Compleja y Sistemas Dinámicos, Universidad Santa María, Valparaíso, Chile. Diciembre 2006.
9. A. Quaas, "On the complex structure of positive solutions to Matukuma-type equations" First Chile-Japan Workshop on Nonlinear Elliptic and Parabolic PDE, Octubre 23 - 26, 2007, Universidad de Chile, Santiago, Chile.
10. A. Quaas, "On the complex structure of positive solutions to Matukuma-type equations". Second Workshop on Elliptic and Parabolic PDEs celebrating the 60th anniversary of professor Manuel Elgueta. Septiembre 3-7, 2007, Universidad Católica, Santiago, Chile.
11. . A. Quaas, "Fundamental solutions and properties of elliptic maximal and minimal operators". New Developments in Partial Differential Equations I. Mayo 21-24, 2007, Pittsburgh, United States.
12. . A. Quaas, "Principal eigenvalues and the Dirichlet problem for fully nonlinear elliptic equation and systems". New Developments in Partial Differential Equations II. 7 al 10 de enero, 2008. Universidad de Chile, Santiago, Chile.

13. A. Quaas: "Fujita type exponent for fully nonlinear parabolic equations and existence results", *Eighth Americas Conference on Differential Equations*. Octubre 19-23, 2009, Veracruz, Mexico.
14. A. Quaas: "Critical exponent for fully nonlinear elliptic and parabolic equations", *Second Chile-Japan Workshop on Nonlinear Elliptic and Parabolic PDE*, Diciembre 1-4, 2009, Tokio, Japan.
15. A. Quaas: "Fundamental solutions and Liouville type theorems for nonlinear integral operators", *The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Dresden University of Technology, Dresden, Germany, Mayo 25 - 28, 2010.
16. A. Quaas: "On the Landesman-Lazer condition for some Fully Nonlinear Elliptic equations", *Positivity: a key to fully-nonlinear equations*, Mayo 31st-Junio 2nd, 2010, Italy, Vietri, Salerno.
- A. Quaas, *Cursillo: "Algunas relaciones entre ecuaciones en derivadas parciales y sistemas dinámicos XXXVII "Semana de la Matemática, Valparaíso, Octubre 2010.*
17. A. Quaas, "Resonance phenomena", In the "8th Regional Conference of Young Scientists of TWAS – ROLAC, Brazilian Academy of Sciences, Rio de Janeiro, 29 Noviembre -Diciembre 2010.
18. A. Quaas, "Resonance phenomena and Landesman-Lazer condition for Fully Nonlinear equation", *Second Sino-Chilean, Conference on Nonlinear Partial Differential Equations, CHINA, Wuhan, 2010.*
19. A. Quaas, *Boundary blow up solutions for fractional elliptic equations*, *Tercer Encuentro de Ecuaciones en Derivadas Parciales, Universidad de La Laguna, España, 13-15 July 2011.*
20. A. Quaas, *Fundamental solutions and Liouville type theorems*, • *Second Sino-Chilean Conference on Nonlinear Partial Differential Equations, CHILE, Santiago, 2012.*
21. A. Quaas, *Fundamental solutions and Liouville type theorems for nonlinear integral operators IV Congreso Latino Americano de Matemáticos, Córdoba 6- 10 de Agosto 2012.*
22. A. Quaas, *Charla de Cierre plenaria: "Soluciones radiales de algunas ecuaciones elípticas y su relación con sistemas dinámicos "* *Charla plenaria de cierre de: Summer School in Mathematics, Valparaíso, Chile, Diciembre 2012.*
23. A. Quaas, "Optimal Liouville Theorems for supersolution of elliptic equation with the Laplacian", *29 Colóquio Brasileiro de Matemática, Rio, Brasil Agosto 2013.*

- 24 A. Quaas, *Charla de Cierre plenaria: "On Optimal type Liouville Theorems V Jornada de Matemática, Instituto de Matemáticas Universidad de Valparaíso, Chile, Enero 2014.*
25. A. Quaas, *Optimal Liouville Theorems for supersolution of elliptic equation with the Laplacian, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, España, Julio 2014.*
26. A. Quaas, *Some progress in nonlinear Liouville type Theorem, Workshop on Nonlinear PDE, Tohoku University, Japón, Noviembre 2014.*
27. A. Quaas, *Liouville type theorems for nonlinear elliptic equations and systems involving fractional Laplacian in the half space, Minimal surfaces, overdetermined problems and geometric analysis, Universidad Católica, Chile, Abril 2015.*
28. A. Quaas, *A priori bounds and existence of solutions for some nonlocal elliptic problems Current Trends in Analysis and Partial Differential Equations, IMPA-Rio de Janeiro, Agosto 2015.*
29. A. Quaas, *A priori bounds and existence of solutions for some nonlocal elliptic problems, Mostly Maximum Principle, Agropoli-Italia septiembre 2015.*
30. A. Quaas, *Large solutions for some local and non-local nonlinear elliptic equations, 3rd Chile-Japan Workshop on Nonlinear PDEs, Osaka, Japón Diciembre 2015.*
31. *Monotonicity of solutions for some nonlocal elliptic problems in half-spaces, "PDEs at the Grand Paradis in Cogne (Aosta Valley) Italy, from June 20 to 24th, 2016, celebrating the 60th birthday of Filomena Pacella.*
32. *Monotonicity of solutions for some nonlocal elliptic problems in half-spaces, Colombia-Barranquilla , Congreso Latinoamericano de Matemáticos (CLAM) 11-15-Julio 2016*
33. *Solvability of Fractional Dirichlet Problems with Supercritical Gradient Terms. The first Joint Meeting Brazil-Italy in Mathematics will take place in August 29 through September 02, 2016 at IMPA, the Instituto Nacional de Matemática Pura e Aplicada, Rio de Janeiro, Brazil.*
- 34.A. Quaas, *Symmetry results in the half space for a semi-linear fractional Laplace equation through a one- dimensional analysis, BIRS Workshop: Mostly Maximum Principle, April 3-7/04/ 2017, Banff Center, Canada*
35. A. Quaas, *Symmetry results in the half space for a semi-linear fractional Laplace equation through a one- dimensional analysis PDE session at PRIMA2017 - Pacific Rim Mathematical Association 14-18/08/ 2017, Oaxaca, Mexico.*
36. A. Quaas, *Existence, nonexistence and multiplicity results for nonlocal Dirichlet problems, LXXXVI Encuentro de la Sociedad de Matemática de Chile, Universidad de Talca, 2-4/11/2017.*

37. A. Quaas, *Periodic solutions for the one-dimensional fractional Laplacian*, 2nd Italian-Chilean Workshop in PDE's Ponte Sisto, 15th to 19th of January 2018 Roma, Italia. INDAM- Istituto Nazionale di Alta Matematica.

37. A. Quaas, *Periodic solutions for the one-dimensional fractional Laplacian*, ICM 2018 satellite conference on Nonlinear PDEs, 23-27-July, Fortaleza, Brasil.

38. A. Quaas, *Periodic solutions for the one-dimensional fractional Laplacian*, XXXII Jornada de Matemática de la Zona Sur, se realizará los días 24-26 abril 2019, Punta Arenas, Chile.

38. A. Quaas, *The sharp exponent in the study of the nonlocal Henon equation in \mathbb{R}^N . A Liouville theorem and an existence result*, PUC-Bath workshop on Nonlinear PDEs and Applications September 10-13, 2019.

39. Quaas, *The sharp exponent in the study of the nonlocal Henon equation in \mathbb{R}^N . A Liouville theorem and an existence result*, Seminar 17 July 2020, UFRO, Chile.

40. A. Quaas, *The sharp exponent in the study of the nonlocal Henon equation in \mathbb{R}^N . A Liouville theorem and an existence result*, Seminar 9 July 2020, PUC-Rio, Brasil.

41. A. Quaas, *Nonlocal Henon equation in \mathbb{R}^N , Analysis and PDE from the south*, January 18, 2021, Zoom Brasil.

42. A. Quaas, *Large-time behavior of unbounded solutions of viscous Hamilton-Jacobi equations in \mathbb{R}^N* , LXXXIX Encuentro de la Sociedad de Matemática de Chile, 15-17 Dic. 2022, Universidad de O'Higgins,

43. A. Quaas, *Intricate structure of a nonlocal Lasry-Lions type problem, Deterministic and stochastic fractional differential equations and jump processes*, 21-25 February 2022, University of Cambridge.

Organization of conferences

- Nonlinear PDE's in Valparaíso, 10-14 enero 2011.

- The 9th American Institute of Mathematical Science conference on Dynamical Systems Differential equation and Application, Orlando USA, Julio 1-5 2012, Sesión el congreso.

- Fully nonlinear equation in Valparaíso 7-10 enero 2013.

- 2a Escuela de Verano en Matemática de Valparaíso, 25 de Noviembre al 06 de Diciembre de 2013, [http:// vescuela.cimfav.cl/](http://vescuela.cimfav.cl/)

- Nonlinear elliptic PDEs at the End of the World, Punta Arenas, Marzo 2-6, 2015 <http://even-tos.cmm.uchile.cl/pdes-at-end-of-world/>

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