

CURRICULUM VITAE

19/05/2025

IGNAT, Ioan Liviu

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1. Education

Habilitation Thesis, IMAR, May 31, 2013

Ph.D., Universidad Autónoma de Madrid, September 15, 2006

Bachelor's degree, Universitatea din Craiova, Romania, July, 2001

Student of University of Pittsburgh, USA, 09/1998-05/1999.

2. Profesional Experience

Researcher CS-I, Institute of Mathematics of the Romanian Academy, 01/04/2016 –

Researcher, ICUB - University of Bucharest, 01/09/2018-30/08/2020, 01/07/2022-30/05/2024

Associate Professor, University of Bucharest, 01/10/2014 – 31/03/2016

Researcher CS-II, Institute of Mathematics of the Romanian Academy, 01/01/2014 – 31/03/2016

Group Leader of Analysis and PDE research line, Basque Center for Applied Mathematics, Spain, 12/2012-09/2013

Researcher, Basque Center for Applied Mathematics, 30/10/2011-30/09/2013

Researcher CS-III, Institute of Mathematics of the Romanian Academy, 01/05/2008 – 31/12/2013

Researcher, Institute of Mathematics of the Romanian Academy, 01/07/2006-31/04/2008

Assistant Professor, Universidad Autónoma de Madrid, 01/04/2006-31/09/2007

3. Research visits to foreign centers

(a) DeustoTech - Bilbao, 6-15/04/2025

(b) ICMAT - Universidad Autonoma de Madrid, 02/10-04/11/2023

(c) Czech Technical University in Prague, 11-19/06/2023

(d) Friedrich-Alexander-Universität Erlangen-Nürnberg (Germany), 23/04-19/05/2023

(e) Universite Paul Sabatier, Toulouse, France, 15-26/01/2023

(f) NTNU, Trondheim, Norway, 02-09/11/2022

(g) University of Alicante, Spain, 1-11/07/2017, 21-27/01/2018, 16-26/07/2018, 10-17/07/2019, 14-18/01/2020

(h) University of Buenos Aires, Argentina, 18-29/04/2016

(i) Centre International de Rencontres Mathematique, Lumini, France, 04-08/04/2016, 14-21/02/2009

(j) University of Puerto Rico, 2 weeks in 2015

(k) Basque Center for Applied Mathematics, various visits 11/2011-09/2013, 1 month 2008, 1 month 2009, 1 month 2010, 2 weeks in 2016, 2017, 1 week 2025

(l) Universidad Autonoma de Madrid, 1 week in 2013, 2 months 2008, 1 week 2018, 5 weeks 2023

(m) University of Evry, France, 2 weeks in 2012, 2w in 2014

(n) Universidad de Alicante, 1 week in 2012, 10 days 2017, 10 days 2018

(o) ICMAT, Madrid, Spain, 2 weeks in 2012,

- (p) University of Rio de Janeiro, 3-16 April, 2011, 2-21/01/2019
- (q) Institute Henry Poincare, 1 month 2010
- (r) Isaac Newton Institute, Cambridge, 4 weeks 2007
- (s) University of Tunis, 2 weeks 2004

4. Publications

- (1) Maria del Mar Gonzalez, Liviu I. Ignat, Dragoş Manea, Sergiu Moroianu, Concentration limit for non-local dissipative convection-diffusion kernels on the hyperbolic space, Volume 248 , November 2024, 113618, <https://doi.org/10.1016/j.na.2024.113618>
- (2) F. Della Pietra, G. Fantuzzi, L. I. Ignat, A. L. Masiello, G. Paoli, E. Zuazua, Finite element approximation of the Hardy constant. *Journal of Convex Analysis* 31 (2024), No. 2, 497–523.
- (3) Jørgen Endal, Liviu I. Ignat, Fernando Quiros, Heat equations with fast convection: Source-type solutions and large-time behaviour, *Discrete Contin. Dyn. Syst. Ser. S* 17 (2024), no. 4, 1497–1512., Doi: 10.3934/dcdss.2023182
- (4) Cristian Cazacu, Liviu I. Ignat, Dragoş Manea, The Hardy inequality and large time behaviour of the heat equation on $R^{N-k} \times (0, \infty)^k$, *J. Differential Equations* 375 (2023), 682–705.
- (5) Jørgen Endal, Liviu I. Ignat, Fernando Quiros, Large-time behaviour for anisotropic stable nonlocal diffusion problems with convection, *J. Math. Pures Appl.* (9) 179 (2023), 277–336.
- (6) Aingeru Fernandez, Andreea Grecu, Liviu I. Ignat, Hardy uncertainty principle for the linear Schrödinger equation on regular quantum trees. *J. Fourier Anal. Appl.* 28 (2022), no. 2, Paper No. 17, 34 pp.
- (7) Cristian M. Cazacu, Liviu I. Ignat, Ademir F. Pazoto, A Convection-Diffusion model on a star shaped tree, *NoDEA Nonlinear Differential Equations Appl.* 29 (2022), no. 2, Paper No. 17, 37 pp.
- (8) Gárriz, A.; Ignat, L. I. A non-local coupling model involving three fractional Laplacians. *Bull. Math. Sci.* 11 (2021), no. 2, Paper No. 2150007, 35 pp.
- (9) Liviu I. Ignat, Julio D. Rossi, Angel San Antolin, Asymptotic behaviour for local and nonlocal evolution equations on metric graphs with some edges of infinite length, *Ann. Mat. Pura Appl.* (4) 200 (2021), no. 3, 1301–1339.
- (10) Andreea Grecu, Liviu I. Ignat, The Schrodinger Equation on a Star-Shaped Graph under General Coupling Conditions, *J. Phys. A* 52 (2019), no. 3, 035202, 26 pp
- (11) Lucian Beznea, Liviu I. Ignat, Julio D. Rossi, From Gaussian estimates for nonlinear evolution equations to the long time behavior of branching processes, *Rev. Mat. Iberoam.* 35 (2019), no. 3, 823–846
- (12) Cristian M. Cazacu, Liviu I. Ignat and Ademir F Pazoto, Null Controllability of the Kuramoto-Sivashinsky Equation on star-shaped, *SIAM J. Control Optim.* 56 (2018), no. 4, 2921–2958.
- (13) Liviu I. Ignat and Diana Stan, Asymptotic behaviour for fractional diffusion-convection equations, *Journal of the London Mathematical Society*, 97, no. 2, (2018), 258-281
- (14) Liviu I. Ignat and Alejandro Pozo, A splitting method for the augmented Burgers equation, *BIT Numerical Mathematics*, BIT 58 (2018), no. 1, 73–102
- (15) Liviu I. Ignat and Alejandro Pozo, A semi-discrete large-time behavior preserving scheme for the augmented Burgers equation, *ESAIM Math. Model. Numer. Anal.* 51 (2017), no. 6, 2367–2398
- (16) Ignat, Liviu I. The dispersion property for Schrödinger equations. PDE's, dispersion, scattering theory and control theory, 59-67, *Semin. Congr.*, 30, Soc. Math. France, Paris, 2017
- (17) Cristian M. Cazacu, Liviu I. Ignat and Ademir F Pazoto, On the asymptotic behavior of a subcritical convection-diffusion equation with nonlocal diffusion, *Nonlinearity*, Volume 30, Number 8, (2017)
- (18) Ignat, Liviu I.; Ignat, Tatiana I.; Long-time behavior for a nonlocal convection diffusion equation. *J. Math. Anal. Appl.* 455 (2017), no. 1, 816–831
- (19) N. Beli, L. Ignat, E. Zuazua. Dispersion for 1-d Schrödinger and wave equation with BV coefficients, *Annales de l'Institut Henri Poincare (C) Non Linear Analysis*, Volume 33, Issue 6, (2016), Pages 1473–1495
- (20) Liviu I. Ignat, Tatiana I. Ignat, Denisa Stancu-Dumitru. A compactness tool for the analysis of nonlocal evolution equations *SIAM J. Math. Anal.* 47 (2015), no. 2, 1330–1354

- (21) V. Banica, L. I. Ignat. Dispersion for the Schrödinger equation on the line with multiple Dirac delta potentials and on delta trees. *Anal. PDE* 7 (2014), no. 4, 903–927
- (22) Liviu I. Ignat, A. Pozo, E. Zuazua. Large time asymptotics, vanishing viscosity and numerics for 1-D scalar conservation laws. *Math. Comp.* 84 (2015), no. 294, 1633–1662
- (23) Liviu I. Ignat, Ademir Pazoto. Large time behaviour for a nonlocal diffusion - convection equation related with the gas dynamics. *Discrete Contin. Dyn. Syst.* 34 (2014), no. 9, 3575–3589.
- (24) Liviu I. Ignat, Damian Pinasco, Julio D. Rossi, and Angel San Antolin. Decay estimates for nonlinear nonlocal diffusion problems in the whole space. *J. Anal. Math.* 122 (2014), 375–401.
- (25) Liviu I. Ignat and Enrique Zuazua. Asymptotic expansions for anisotropic heat kernels. *J. Evol. Equ.* 13 (2013), no. 1, 1–20.
- (26) Liviu I. Ignat and Enrique Zuazua. Convergence rates for dispersive approximation schemes to nonlinear Schrödinger equations. *J. Math. Pures Appl.*, (9) 98 (2012), no. 5, 479–517.
- (27) Liviu I. Ignat, Julio D. Rossi, and Angel San Antolin. Lower and upper bounds for the first eigenvalue of nonlocal diffusion problems in the whole space. *Journal of Differential Equations*, 252(12):6429 – 6447, 2012.
- (28) Liviu I. Ignat, Ademir Pazoto and Lionel Rosier. Inverse problem for the heat equation and the Schrödinger equation on a tree. *Inverse Problems*, 28(015011), 2012.
- (29) Valeria Banica and Liviu I. Ignat. Dispersion for the Schrödinger equation on networks. *J. Math. Phys.*, 52(083703), 2011.
- (30) Liviu I. Ignat and Diana Stan. Dispersive properties for discrete Schrödinger equations. *Journal of Fourier Analysis and Applications*, 17(5):1035–1065, 2011.
- (31) Liviu I. Ignat, A splitting method for the nonlinear Schrödinger equation, *Journal of Differential Equations Vol. 250, Issue 7, 1 April 2011, pp, 3022–3046*
- (32) L.I. Ignat, Strichartz estimates for the Schrödinger Equation on a tree and applications, *SIAM Journal of Mathematical Analysis*, Vol. 42, No. 5, pp. 2041–2057, 2010.
- (33) L.I. Ignat and J.D. Rossi, Asymptotic expansions for nonlocal diffusion equations in L^q -norms for $1 \leq q \leq 2$. *Journal of Mathematical Analysis and Applications* 362 (2010), pp. 190–199.
- (34) L.I. Ignat and J.D. Rossi, Decay estimates for nonlocal problems via energy methods. *Journal de Mathématiques Pures et Appliquées*, (9) 92 (2009), no. 2, 163–187.
- (35) L.I. Ignat and E. Zuazua. Convergence of a two-grid algorithm for the control of the wave equation. *Journal of European Mathematical Society*, 11 (2009), no. 2, 351–391.
- (36) L.I. Ignat and E. Zuazua. Numerical dispersive schemes for the nonlinear Schrödinger equation. *SIAM Journal of Numerical Analysis*, 47 (2009), no. 2, 1366–1390..
- (37) L.I. Ignat and J.D. Rossi, Refined asymptotic expansions for nonlocal diffusion equations *Journal of Evolution Equations*, 8 (2008), no. 4, 614–629.
- (38) L.I. Ignat and J.D. Rossi, Asymptotic behaviour for a nonlocal diffusion equation on a lattice. *Z. Angew. Math. Phys.* 59 (2008), no. 5, 918–925.
- (39) L. I. Ignat and J.D. Rossi. *A nonlocal convection-diffusion equation*. *J. Functional Analysis*, 251(2) (2007), 399–437.
- (40) L.I. Ignat. Fully discrete schemes for the Schrödinger equation: Dispersive properties. *Math. Models Methods Appl. Sci.*, 17(4):567–591, 2007.
- (41) L.I. Ignat. Global Strichartz estimates for approximations of the Schrödinger equation. *Asymptotic Analysis*, 52:37–51, 2007.
- (42) L.I. Ignat and E. Zuazua. Dispersive properties of numerical schemes for nonlinear Schrödinger equations. In *Foundations of Computational Mathematics, Santander 2005. L. M. Pardo et al. eds*, volume 331, pages 181–207. London Mathematical Society Lecture Notes, 2006.
- (43) L.I. Ignat. Qualitative properties of a numerical scheme for the heat equation. Bermúdez de Castro, A. (ed.) et al., *Proceedings of ENUMATH 2005, the 6th European conference on numerical mathematics and advanced applications*, Santiago de Compostela, Spain, July 18–22, 2005. Springer. 593–600, 2006.

- (44) L.I. Ignat and E. Zuazua. A two-grid approximation scheme for nonlinear Schrödinger equations: dispersive properties and convergence. *C. R. Acad. Sci. Paris, Ser. I*, 341(6):381–386, 2005.
- (45) L.I. Ignat and E. Zuazua. Dispersive properties of a viscous numerical scheme for the Schrödinger equation. *C. R. Acad. Sci. Paris, Ser. I*, 340(7):529–534, 2005.
- (46) L. I. Ignat and C. Lefter and V. D. Radulescu, Minimization of the renormalized energy in the unit ball of R^2 . *Nieuw Arch. Wiskd.* (5) 1 (2000), no. 3, 278–280

5. Awards

- (1) "Dimitrie Pompeiu" prize of the Romanian Academy, 2009.
- (2) 2009 ANCS (National Authority for Scientific Research) prize for the best young researcher returned to Romania.
- (3) Honorable Mention, Putnam Competition, USA, 1998.
- (4) Silver Medal, International Mathematical Olympiad, Argentina, 1997.

6. PhD Students

- (1) Andreea Grecu, Univ. of Bucharest and IMAR, 2021, currently at Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy
- (2) Dragos Manea, IMAR, 2021–2025
- (3) Andreea Dima, IMAR, 2023–

7. Former Students

- (1) Diana Stan (PhD at Universidad Autonoma de Madrid, Assitent Profesor Universidad de Cantabria), Scoala Normala Superioara Bucuresti, Master Thesis, 2010.
- (2) Cristian Gavrus, (PhD at Univ. of California Berkeley), Scoala Normala Superioara Bucuresti, Master Thesis, 2012.
- (3) Emilian Paraicu, Bachelor degree thesis, Univ. of Bucharest, 2015
- (4) Andrei Miu, Master thesis, Univ. of Bucharest, 2015
- (5) Andreea Grecu, PhD, Univ. of Bucharest, 2021
- (6) Denisa Stancu Dumitru, postdoctoral student, IMAR, 2011- 2016.
- (7) Cristian Cazacu, postdoctoral student, IMAR, 2012- 2016.
- (8) Aurora Marica, postdoctoral student, IMAR, 2014-2016

8. Teaching

- (1) Analysis 1, ODEs for engineers, National University of Science and Technology POLITEHNICA, Bucharest, 2024-2025
- (2) Analysis and PDEs, Doctoral School, IMAR, 2024
- (3) Harmonic Analysis with an Introduction to Evolution Equations, SNSB master, University of Bucharest, 2021
- (4) PDE of evolution type, SNSB master, University of Bucharest, 2020
- (5) Nonlinear Evolution PDEs, SNSB, 2019
- (6) Harmonic Analysis and PDE, SNSB, 2017
- (7) Partial Differential Equations, University of Bucharest, 2013-2016
- (8) Nonlinear evolution equations, SNSB, 2014-2015
- (9) Numerical Methods for Partial Differential Equations, SNSB, 2010-2011
- (10) Numerical schemes for dispersive equations, February 08-12, 2010, BCAM, Bilbao, Spain
- (11) Evolution equations, SNSB, 2009-2010.

(12) Evolution equations: dissipation and dispersion, SNSB, 2008-2009

9. Organizer/Coorganizer of scientific events

- (1) NSF-UEFISCDI Collaboration: Summer School 2025, IMAR, 30/06 - 8/07/2025
- (2) RIP workshop IMAR- National University for Science and Technology 2023, 2024
- (3) Workshop for Young Researchers in Mathematics, 2021, 2022
- (4) Workshop 7th Edition Mathematical Analysis, 15-17/01/2020, Universidad de Alicante, <https://dmat.ua.es/es/actividades/vii-jornadas-de-analisis-matematico.html>
- (5) Atelier de travail en Equations aux Dérivées Partielles, 13-14/12/2018, IMAR
- (6) Workshop for Young Researchers in Mathematics, Bucharest, May 17 - May 20, 2018, <http://math.univ-ovidius.ro/Workshop/2018/WYRM/#/>
- (7) Workshop Transitions de phase et equations non locales, 25-27/04/2018, IMAR, Bucharest <https://indico.math.cnrs.fr/event/3052/>
- (8) Workshop 6th Edition Mathematical Analysis, 24-26/01/2018, Universidad de Alicante, <https://dmat.ua.es/en/activities/6th-edition-mathematical-analysis.html>
- (9) Happy PDEs Days, Bucharest, December 7-8, 2017, IMAR, Bucharest
- (10) Workshop for Young Researchers in Mathematics, Bucharest, May 17 - May 20, 2017,
- (11) Happy PDEs Days, Bucharest, December 8-9, 2016, IMAR, Bucharest
- (12) Workshop for Young Researchers in Mathematics, Constanța, May 19 - May 22, 2016,
- (13) Workshop for Young Researchers in Mathematics, Constanța, May 21 - May 24, 2015,
- (14) Workshop for Young Researchers in Mathematics, Constanța, May 22 - May 23, 2014,
- (15) Special Session: Calculus of Variations and Partial Differential Equations, Joint International Meeting of the AMS and the Romanian Mathematical Society, Organizers: Marian Bocea (Loyola University, Chicago, mbocea@luc.edu), Liviu Ignat (Institute of Mathematics of the Romanian Academy), Mihai Mihailescu (University of Craiova & IMAR), Daniel Onofrei (University of Houston), June 27 - 30, 2013, Alba Iulia, Romania
- (16) Workshop for Young Researchers in Mathematics, Constanța, May 09 - May 10, 2013,
- (17) Workshop for Young Researchers in Mathematics, Constanța, May 10 - May 11, 2012,
- (18) Workshop for Young Researchers in Mathematics, Constanța, May 12 - May 13, 2011,
- (19) WORKSHOP ON PARTIAL DIFFERENTIAL EQUATIONS Bucharest, November 25-26, 2010
- (20) WORKSHOP ON PARTIAL DIFFERENTIAL EQUATIONS Bucharest, October 29 - 30, 2008

10. Research Projects

Director of Research Projects

- (1) Analysis of Schrodinger equations, ANCS-UEFICDI, PN-II-RU-TE- 2014-4-0007, 01/10/2015-30/09/2017, 550000RON
- (2) Analysis, Control and Numerical Approximations of Partial Differential Equations, CNCS, PN II, PN-II-ID-PCE-2011-3-0075, 01/10/2011-30/09/2016, 1500000RON
- (3) Qualitative properties of partial differential equations and their numerical approximations, CNCSIS, PN II, TE-4/2010, 28/07/2010 - 27/07/2013, 750000RON
- (4) Qualitative properties of diffusion and dispersion in the study of the nonlinear problems and their numerical approximations, CNCSIS, PN II, RP-3,10/2007-09/2009, 500000 RON.

Member in Research Projects

- (1) NSF-UEFISCDI: Linear and Nonlinear Stability of Physical Flows (LNSPF), Complex bilateral research collaboration between U.S. and Romanian researchers, NSF PI: Alexandru Ionescu (Princeton University), UEFISCDI project code ROSUA-2024-0001, October 1, 2024 - September 30, 2027

- (2) Sharp analysis of partial differential operators, Project code: PN-III-P1-1.1-TE-2021-1539, UEFISCDI, P.I. Cristian Cazacu
- (3) Noi abordari in inegalitatile functionale si ecuatii de evolutie. PN-III-P1-1.1-TE2016-2233, ANCS-UEFICDI, P.I. Cristian Cazacu
- (4) Typical and Nontypical Eigenvalue Problems for Some Classes of Differential Operators, ANCS-UEFICDI, PN-III-P4-ID-PCE-2016-0035, P.I. Mihai Mihailescu
- (5) Dynamics, Control And Numerics For Fractional Partial Differential Equations, University of Puerto Rico, FA9550-15-1-0027, P.I. Mahamawi Warma, AFOSR Grant FA9550-15-1-0027, December 2014–November 2017 (Total: \$450,438)
- (6) Methods and platforms for numerical simulation and control of environmental flows, MTM2014-52347-C2-01-R, financed by MICIN, SPAIN, 2015-2017, IP E. Zuazua
- (7) New analytical and numerical methods in wave propagation, NUMERIWAVES, FP7 - 246775, financed by European Research Council - ERC, IP E. Zuazua (Total: 1662999 euros)
- (8) Partial Differential Equations: Analysis, Control, Numerics and Applications, MTM2011-29306, financed by the MICINN SPAIN, 2012-2014, IP E. Zuazua
- (9) Ecuaciones en Derivadas Parciales: Análisis, Control, Numérico y Aplicaciones, MTM2008-03541, MEC Spain, 2009-2011, 182300 euros, Grant Director Enrique Zuazua.
- (10) Dezvoltarea unui parteneriat european pentru studiul unor probleme actuale de analiza matematica, IMAR, CEx06-M3-102/01.08.2006, August 2006 - Iulie 2008, Grant Director: Prof. Dr. Florin Rădulescu.
- (11) Desarrollo de aplicacion informatica para el diseno optimo aeronautico mediante tecnicas novedosas, Universidad Autonoma de Madrid, (CIT-370200-2005-10) MEC- Spain, 1/11/2005 - 30/10/2008, Grant Directors: Francisco Palacios, Instituto Nacional de Tecnica Aeroespacial, Enrique Zuazua Iriondo, UAM, 240000 euro.
- (12) Analisis, aproximacion numerica y diseno optimo de ecuaciones en derivadas parciales, MTM 2005-00714, Universidad Autonoma de Madrid, MEC, 01/11/2005 - 31/10/2008, Grant Director Enrique Zuazua Iriondo, 192 000 euro.
- (13) Analisis, Control y Simulacion Numerica en medios heterogeneos y en la interaccion fluido-estructura, BFM2002-03345, Universidad Autónoma de Madrid, MCYT, Grant Director Enrique Zuazua Iriondo, 171 000 euro.
- (14) Smart system, new materials, adaptive systems and their nonlinearities modelling, control and numerical simulation, HPRN-CT-2002-00284, Universidad Autónoma de Madrid, EU, Grant Director: Enrique Zuazua Iriondo, 130000 euro Spanish group.
- (15) Homogenization and Multiple Scales, HPRN-CT-2000-00109, Universidad Autónoma de Madrid, EU, Grant Director Enrique Zuazua Iriondo, 180 000 euros Spanish group.

11. Fellowships

- (1) Fellowship from Institute Henry Poincare Paris to participate to the program "Trimestre sur le Controle des Equations aux Derivees Partielles et Applications ", Paris, oct-dec 2010.
- (2) Fellowship from Cambridge Philosophical Society as young participant to the program "Highly Oscillatory Problems: Computation, Theory and Application" of Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 2007
- (3) FPU fellowship for realizing the Ph.D. thesis, Spanish Ministry of Education, 01/01/2004-31/03/2006, Universidad Autónoma de Madrid, Madrid, Spain.
- (4) Pre-doctoral Fellowship, E.U Project "Homogenization and Multiple Scales", 25/09/2002–31/12/2003, Universidad Autónoma de Madrid, Spain.
- (5) Scholarship from University Honours College of University of Pittsburgh, USA, 09/1998-05/1999, University of Pittsburg, USA.

12. Presentations

- (1) Approximations of the best constants, Trends in Mathematical and Data Sciences, Universidade Federal Fluminense, Niteroi - Rio de Janeiro, Brazil, 16-20/06/2025

- (2) Approximations of the best constants, Univ. of Wroclaw, Wroclaw, Poland, 26/05/2025
- (3) Approximations of the best constants, DeustoTech, Bilbao, 14/04/2025
- (4) Approximations of the best constants, Univ. AI Cuza, Iasi, 14/03/2025
- (5) Approximations of the best constants, Univ. of Cantabria, Santander, 07/02/2025
- (6) Asymptotic behavior of solutions for some diffusion problems on metric graphs, SEMINARIO DE EDP E MATEMATICA APLICADA organized by Juan Limaco, <https://edpemaplicada.uff.br/>, Brazil, Online, 18/09/2024
- (7) Approximations of the best constants, Le 16eme Colloque Franco-Roumain, Bucharest, du 26 au 30/08/2024
- (8) Large-time behaviour for anisotropic stable nonlocal diffusion problems with convection, Bedlewo, 24/06/2024
- (9) Long time behaviour on metric trees: diffusion vs transport, Braga, Portugal, Final conference of COST Action CA18232 - Mathematical models for interacting dynamics on networks, 5-9/02/2024
- (10) Asymptotic behavior of solutions for some diffusion problems on metric graphs, PDE SEMINAR, UAM - ICMAT, 09/10/2023, Madrid, Spain
- (11) Asymptotic behavior of solutions for some diffusion problems on metric graphs, NCSU Differential Equations/Nonlinear Analysis Seminars, 20/09/2023, NC state university, US
- (12) Large-time behaviour for anisotropic stable nonlocal diffusion problems with convection, The Tenth Congress of Romanian Mathematicians, 30/06 - 5/7/2023, Pitești, Romania
- (13) Asymptotic behaviour of solutions for some diffusion problems on a metric graphs, Faculty of Nuclear Sciences and Physical Engineering, 13/06/2023, Praga, Czech Republic
- (14) Asymptotic behavior of solutions for some diffusion problems on metric graphs, Fifth Romanian Itinerant Seminar on Mathematical Analysis and its Applications” 26-28 May 2023, Craiova, Romania
- (15) Asymptotic behavior of solutions for some diffusion problems on metric graphs, Mini-workshop: Analysis, Numerics and Control, May 11, 2023, FAU, Erlangen, Germany
- (16) Large-time behaviour for anisotropic stable nonlocal diffusion problems with convection, Nonlocal Equations: Analysis and Numerics, March 06 – 10, 2023, Bielefeld University, Germany
- (17) Asymptotic behavior of solutions for some diffusion problems on metric graphs, Numerical and theoretical advances in quantum mechanics, 12-20/01/2023, Toulouse France
- (18) Liviu Ignat, Asymptotic behavior of solutions for some diffusion problems on metric graphs, NTNU, Trondheim, Norvegia, Monday, 7/11/2022
- (19) Large-time asymptotics of some numerical schemes for Burgers’ like equations, Numerical Analysis, Numerical Modeling, Approximation Theory, Cluj, Online, 26-28/10/2022
- (20) Asymptotic behavior of solutions for some diusion problems on metric graphs, Fifteenth French-Romanian Colloquium on Applied Mathematics, 29/08-02/09/2022, Toulouse, France
- (21) *Asymptotic behavior of solutions for some local and nonlocal diffusion problems on metric graphs*, Bilbao analysis and PDE seminar, Sep 09, 2021, <https://sites.google.com/view/apdebilbao/seminars/seminars-2021-2022?authuser=0>
- (22) *Asymptotic behavior of solutions for some nonlocal diffusion problems on metric graphs*, Workshop on Nonlocal Models (Analysis, Optimization and Implementation, 14 July 2021, <https://alop.uni-trier.de/event/workshop-on-nonlocal-models-analysis-optimization-and-implementation/>
- (23) *Asymptotic behavior of solutions for some diffusion problems on metric graphs*, COST Action CA18232 - Mathematical models for interacting dynamics on networks, 21 Sep 2021, Ceptor Andrevlje, Fruska Gora National Park, Serbia <https://www.mat-dyn-net.eu/en/activities/wg2-meeting-in-national-park-fruska-gora-serbia>
- (24) *Long time behavior of the solutions for some diffusion processes on a metric graph*, 8th International Conference on Mathematics and Informatics, September 9-10, 2021, <https://mathinfo.ms.sapientia.ro/2021/>
- (25) Liviu Ignat, Asymptotic behavior of solutions for some local and nonlocal diffusion problems on metric graphs, (virtual) seminar in Hagen, COST partener Delio Mugnolo, 21/10/2020
- (26) Liviu Ignat, Asymptotic behavior of solutions for local and nonlocal diffusion on metric graphs, virtual International conference on applied mathematics and numerical methods, October 29-31, 2020, Craiova, Romania.

- (27) The Schrödinger equation on a tree: dispersion and Hardy's uncertainty principle, 7th International Conference on Mathematics and Informatics September 2-4, 2019, Tg. Mures, Romania
- (28) Null-controllability of the linear Kuramoto-Sivashinsky equation on star-shaped trees, 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019), 18/07/2019, Valencia, Spain
- (29) The Schrödinger equation on a tree: dispersion and Hardy's uncertainty principle, The Ninth Congress of Romanian Mathematicians, June 28 - July 3, 2019, Galati, Romania
- (30) Null-controllability of the linear Kuramoto-Sivashinsky equation on star-shaped trees, International Conference on Elliptic and Parabolic Problems 20.05.2019-24.05.2019, Gaeta, Italy
- (31) The Schrödinger equation on a tree: dispersion and Hardy's uncertainty principle, 2nd Workshop on Analysis, PDEs and Mechanics - 30 May 2019, "Gheorghe Mihoc - Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics, Bucuresti
- (32) The Schrödinger equation on a tree, Universidad del Pais Vasco, 23/11/2018, Bilbao, Spain,
- (33) The Schrödinger equation on a tree, Universidad de Cantabria, 21/11/2018, Santander, Spain
- (34) Asymptotic behaviour for nonlocal diffusion-convection equations, Universidad Autonoma de Madrid, Spain, 25/10/2018
- (35) Asymptotic behaviour for nonlocal diffusion-convection equations, Workshop ICUB, U. Bucharest, 9 nov 2018
- (36) Asymptotic behaviour for fractional diffusion-convection equations, Workshop Analyse, analyse numerique et controle des milieux continus, Univ. of Bucharest, Romania, 21-23/05/2018
- (37) Asymptotic behaviour for fractional diffusion-convection equations, Ninth Itinerant Workshop in PDEs Institut de Mathematiques de Bordeaux, January 8-10, 2018
- (38) Asymptotic behaviour for fractional diffusionconvection equations, DeustoTech, 14/11/2017, Bilbao, Spain
- (39) Asymptotic behaviour for fractional diffusion-convection equations, Workshop on Pure and Applied Analysis, October 21, 2017, University of Craiova
- (40) Kuramoto-Sivashinsky equation on a star-shaped tree. A controllability result, Oberwolfach, June 2017, Germany
- (41) Asymptotic behaviour for fractional diffusion- convection equations, UBB, Cluj, May 24, 2017
- (42) Asymptotic behaviour for fractional diffusion- convection equations, International Conference on Elliptic and Parabolic Problems, Gaeta, May 2017, Italy
- (43) "Flash" Dispersion on Trees, CIRM, June 2017, Franta
- (44) Dispersion property for Schrödinger equations, International Center for Advanced Studies, Buenos Aires, 26/04/2016
- (45) Long-time behaviour for nonlocal convection-diffusion problems, 3rd Conference on Nonlocal Operators and Partial Differential Equations, 27.06.2016 - 01.07.2016, Bedlewo, Poland
- (46) Dispersion property for Schrödinger equations, Workshop on geometry and PDEs, 10-11 June 2016, West University of Timisoara, Romania 2016
- (47) Dispersion property for Schrödinger equations, The Eighth Congress of Romanian Mathematicians, Iasi, Romania, 2015
- (48) Dispersion property for Schrödinger equations, 24 April, 2015, San Juan, University of Puerto Rico, USA
- (49) Long-time behavior for nonlocal problems, Fri 17 April, 2015, San Juan, University of Puerto Rico, USA
- (50) Long-time behaviour for nonlocal problems, 12e Colloque Franco-Roumain de Mathematiques Appliques, August 25-30, 2014, Universite de Lyon, Lyon, France.
- (51) Long-time behaviour for nonlocal problems, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 07 - July 11, 2014, Madrid, Spain
- (52) About nonlocal evolution equations, Meeting MTM, BCAM-Basque Center for Applied Mathematics, Bilbao, Spain, 13/06/2014.
- (53) Long-time behavior for nonlocal problems, Workshop for Young Researchers in Mathematics, University of Constanta, Romania, 22/05/2014

- (54) Long-time behaviour for a nonlocal convection-diffusion equation, Universite de Evry, 05/06/2014
- (55) "Nonlocal evolution equations", The second Kyushu-Euskadi Workshop on Applied Mathematics, Fukuoka, Japon, 12 nov 2013
- (56) "Nonlocal evolution equations", MTM Workshop, Basque Center for Applied Mathematics, 18th February, Bilbao, 2013
- (57) "Dispersion for Schrödinger equations", Pde's, Dispersion, Scattering theory and Control theory, Monastir, 10-14 June 2013
- (58) "Long-time behaviour for a nonlocal convection-diffusion equation", AMS Meeting, Alba Iulia, June 27 - 30, 2013
- (59) Dispersive properties for Schrödinger equations" la Universitatea din Craiova, 6/09/2012
- (60) Dispersion for Schrödinger equations, XI eme Colloque Franco-Roumain de Mathematiques Appliquees, 24-30/08/2012, Bucharest
- (61) Nonlocal evolution problems, XI eme Colloque Franco-Roumain de Mathematiques Appliquees, 24-30/08/2012, Bucharest
- (62) Dispersive properties for Schrödinger equations, Univ. Evry, France, 21 jun 2012.
- (63) Dispersive properties for Schrödinger equations, Partial differential equations, optimal design and numerics, Benasque, September 05, 2011
- (64) Open session on networks, Partial differential equations, optimal design and numerics, Benasque, Spain, September 06, 2011
- (65) Dispersive properties for Schrödinger equations, The Seventh Congress of Romanian Mathematicians, Brasov, June 29, 2011
- (66) Dispersive properties for Schrödinger equations, Workshop for Young Researchers in Mathematics, Constanta, May 12, 2011
- (67) Dispersive properties for Schrödinger equations, Seminário de Analise/EDP, Instituto de Matematica, Universidade Federal do Rio de Janeiro, April 14, 2011
- (68) Dispersive properties for Schrödinger equations, Seminário de Equações Diferenciais Parciais, IMPA, Rio de Janeiro, April 7, 2011
- (69) Liviu Ignat, Uniform Boundary Observability of a Two-Grid Method for the 2d- Wave Equation, Workshop on Control of Dispersive Equations November 8-10, 2010, part of Control of Partial and Differential Equations and Applications Trimester, Institute Henri Poincare, Paris
- (70) Liviu Ignat, Null controllability of the heat equation on the Heisenberg group, Workshop Control of parabolic equations and systems, applications to fluids, November 15-19, 2010, part of Control of Partial and Differential Equations and Applications Trimester, Institute Henri Poincare, Paris
- (71) Liviu Ignat, Strichartz estimates for the Schrödinger equation on a tree and applications, Highly Oscillatory Problems: From Theory to Applications, 12-17 September 2010, The Isaac Newton Institute, Cambridge, UK, Conferinta organizata de European Science Foundation
- (72) Convergence rates for dispersive approximation schemes to nonlinear Schrödinger equations, 10eme Colloque Franco-Roumain de Mathematiques Appliquees, Poitiers, august 2010, Franta, plenary talk
- (73) A splitting method for nonlinear Schrödinger equation, 10eme Colloque Franco-Roumain de Mathematiques Appliquees, Poitiers, august 2010, France
- (74) Asymptotics for nonlocal evolution equations, Workshop on Partial differential equations, optimal design and numerics, 28 august 2009, Benasque, Huesca, Spain
- (75) Schrödinger equations on trees, MTM Workshop, Basque Center for Applied Mathematics, 1 iulie 2009, Bilbao, Spania
- (76) Splitting methods for Schrödinger equations, MTM Workshop, Basque Center for Applied Mathematics, 1 iulie 2009, Bilbao, Spania
- (77) Asymptotics for nonlocal evolution equations, Workshop on non-local equations, Leganes, Madrid, 29-30 iunie 2009.
- (78) A nonlocal convection-diffusion equation, Romanian - German Symposium on Mathematics and its Applications May 14 - 17, 2009, Sibiu (Romania)

- (79) Asymptotics for nonlocal evolution equations, Basque Center for Applied Mathematics, Bilbao, Spain, dec. 2008.
- (80) Asymptotics for nonlocal evolution equations, Universite de Picardie-Jules Verne, Amiens, France, sep. 2008.
- (81) A nonlocal convection diffusion equation, Exploratory Workshop on Asymptotic Analysis and Applications in Continuum Mechanics, Braşov, August 28- 30, 2008.
- (82) A nonlocal convection-diffusion equation, Universidad Complutense de Madrid, 4/03/2008.
- (83) A nonlocal convection-diffusion equation, Dispersive CIM Workshop on PDE's, Numerical Simulation and Applications" organizat la Centro Internacional de Matematicas, Coimbra, 14/12/2007
- (84) A nonlocal convection-diffusion equation, IMAR, Bucuresti, 13/11/2007.
- (85) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, Workshop "Dispersive long waves models: control theory and boundary value problems", Wolfgang Pauli Institute, Viena, 17/10/ 2007
- (86) Dispersive schemes for linear and nonlinear Schrödinger equations, invited conference in the program "Highly Oscillatory Problems: Computation, Theory and Application", Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 08/04/2007
- (87) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, Invited Conference, University Roma1 La Sapienza, Roma, 21/02/2007.
- (88) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, European Conference on Smart Systems, Roma, 26-28/10/2006.
- (89) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, International Congress of Mathematicians, Madrid, 22-30/08/2006.
- (90) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, Institute of Mathematics of Romanian Academy, Bucharest, 7-14/06/2006.
- (91) Numerical approximation scheme for dispersive equations, Workshop "Partial Differential Equations, Optimal Design and Numerics", Benasque, 28.08-09.09.2005.
- (92) Unique continuation property for the eigenvalues of the discrete Laplacian on the square, Workshop "Partial Differential Equations, Optimal Design and Numerics", Benasque, 28/08-09/09/2005.
- (93) Qualitative properties of Numerical Approximations of the Heat Equation, European Conference on Numerical Mathematics and Advanced Applications: Enumath 2005, Santiago de Compostela, 18-22/06/2005.
- (94) Schrödinger equations, numerical approximation schemes and dispersive properties, The seminar of Applied Mathematics of Department of Mathematics of Universidad Autonoma de Madrid, Madrid, Spain.
- (95) Dispersive properties for numerical approximation of Schrödinger Equation, Universite de Tunis,Tunis, 30.04.2004.
- (96) Dispersive properties for numerical approximation of Schrödinger Equation, Midterm meeting of the TMR project "Homogenization and multiple scales", Heidelberg, Germany, 6-7/12/2002.
- (97) A Variational Approach to Discontinuous Problems with Critical Exponents, Inequalities, Timisoara, Rumania, 9/07/2001-14/07/2001.

13. Participant to programs, workshops, courses

- (1) Flow control in the presence of shocks: theory, numerics and applications Enrique Zuazua (BCAM) 23-27 November 2009, Basque Center for Applied Mathematics, Bilbao, Spain.
- (2) Control problems in quantum mechanics Jean-Pierre Puel (Université de Versailles St Quentin, France) 16-20 November 2009, Basque Center for Applied Mathematics, Bilbao, Spain.
- (3) Controle et problemes inverses pour les EDP : aspects theoriques et numeriques, CIRM, Marseille, France, 16-20/02/2009.
- (4) The program "Highly Oscillatory Problems: Computation, Theory and Application" organized by Isaac Newton Institute for Mathematical Sciences, Cambridge, Uk, 12/04/2007-09/05/2007.

- (5) The course "Computational Methods for Flow and Structural Control", Prof. Roland Glowinski, Univ. of Houston, 16-20/05/2005, Universidad Autonoma de Madrid, Madrid, Spain.
- (6) The course "A short course on Level Set Methods", Prof. Gregoire Allaire, Ecole Polytechnique Paris, 11-15/04/2005, Universidad Autónoma de Madrid, Madrid, Spain.
- (7) Primer Congreso Conjunto de Matematicas RSME-SCM-SEIO-SEMA, Valencia, 31/01-04/02/2005, RSME-SCM-SEIO-SEMA, Valencia, Spain.
- (8) Fabes Lectures on Real Analysis & PDE's, Bilbao, 9/9/2004-11/09/2004, Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, Spain.
- (9) 7th International Conference on Harmonic Analysis and Partial Differential Equations, El Escorial, Madrid, Spain, 21/06/2004-25/06/2004.
- (10) The course "Domain Decomposition Solution of PDE's and Applications", Prof. Alfio Quarteroni, Ecole Polytechnique Fédérale de Lausanne, 23-27/02/2004, Universidad Autónoma de Madrid, Madrid, Spain
- (11) The course "Nuevos Retos en Matematica Aplicada", Castro Urdiales, Spain, 1/09/2003-5/09/2003.
- (12) Workshop on Harmonic Analysis and Partial Differential Equations, Puerto Vallarta, Mexico, 23/06/2003-27/06/2003.