

# CURRICULUM VITAE

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 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) University of Alicante, Spain, 1-11/07/2017, 21-27/01/2018, 16-26/07/2018, 10-17/07/2019, 14-18/01/2020
- (b) University of Buenos Aires, Argentina, 18-29/04/2016
- (c) Centre International de Rencontres Mathematique, Lumini, France, 04–08/04/2016, 14-21/02/2009
- (d) University of Puerto Rico, 2 weeks in 2015
- (e) 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
- (f) Universidad Autonoma de Madrid, 1 week in 2013, 2 months 2008, 1 week 2018
- (g) University of Evry, France, 2 weeks in 2012, 2w in 2014
- (h) Universidad de Alicante, 1 week in 2012, 10 days 2017, 10 days 2018
- (i) ICMAT, Madrid, Spain, 2 weeks in 2012,
- (j) University of Rio de Janeiro, 3-16 April, 2011, 2-21/01/2019
- (k) Institute Henry Poincare, 1 month 2010
- (l) Isaac Newton Institute, Cambridge, 4 weeks 2007
- (m) University of Tunis, 2 weeks 2004

## 4. Publications

- (1) Aingeru Fernandez, Andreea Grecu, Liviu I. Ignat, Hardy uniqueness principle for the linear Schrödinger equation on quantum regular trees

- (2) Cristian M. Cazacu, Liviu I. Ignat, Ademir F. Pazoto, A Convection-Diffusion model on a star shaped tree, <https://arxiv.org/abs/1904.08309>
- (3) 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, accepted Annali di Matematica Pura ed Applicata 2020.
- (4) 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
- (5) 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
- (6) 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.
- (7) 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
- (8) Liviu I. Ignat and Alejandro Pozo, A splitting method for the augmented Burgers equation, BIT Numerical Mathematics, BIT 58 (2018), no. 1, 73–102
- (9) 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
- (10) 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
- (11) 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)
- (12) 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
- (13) N. Beli, L. Ignat, E. Zuazua. Dispersion for 1-d Schrödinger and wave equation with BV coefficients, Annales de l'Institut Henri Poincaré (C) Non Linear Analysis, Volume 33, Issue 6, (2016), Pages 1473–1495
- (14) 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
- (15) 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
- (16) 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
- (17) 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.
- (18) 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.
- (19) Liviu I. Ignat and Enrique Zuazua. Asymptotic expansions for anisotropic heat kernels. J. Evol. Equ. 13 (2013), no. 1, 1–20.
- (20) 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.
- (21) 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.
- (22) 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.
- (23) Valeria Banica and Liviu I. Ignat. Dispersion for the Schrödinger equation on networks. J. Math. Phys., 52(083703), 2011.
- (24) Liviu I. Ignat and Diana Stan. Dispersive properties for discrete Schrödinger equations. Journal of Fourier Analysis and Applications, 17(5):1035–1065, 2011.

- (25) 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
- (26) 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.
- (27) 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.
- (28) 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.
- (29) 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.
- (30) 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..
- (31) L.I. Ignat and J.D. Rossi, Refined asymptotic expansions for nonlocal diffusion equations *Journal of Evolution Equations*, 8 (2008), no. 4, 614–629.
- (32) 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.
- (33) L. I. Ignat and J.D. Rossi. A nonlocal convection-diffusion equation. *J. Functional Analysis*, 251(2) (2007), 399–437.
- (34) L.I. Ignat. Fully discrete schemes for the Schrödinger equation: Dispersive properties. *Math. Models Methods Appl. Sci.*, 17(4):567–591, 2007.
- (35) L.I. Ignat. Global Strichartz estimates for approximations of the Schrödinger equation. *Asymptotic Analysis*, 52:37–51, 2007.
- (36) 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.
- (37) 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.
- (38) 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.
- (39) 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.
- (40) 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, 2016 –

## 7. Former Students

- (1) Diana Stan (PhD at Universidad Autonoma de Madrid, Assistent 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, Master thesis, Univ. of Bucharest, 2016
- (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) Nonlinear Evolution PDEs, SNSB, 2019
- (2) Harmonic Analysis and PDE, SNSB, 2017
- (3) Partial Differential Equations, University of Bucharest, 2013-2016
- (4) Nonlinear evolution equations, SNSB, 2014-2015
- (5) Numerical Methods for Partial Differential Equations, SNSB, 2010-2011
- (6) Numerical schemes for dispersive equations, February 08-12, 2010, BCAM, Bilbao, Spain
- (7) Evolution equations, SNSB, 2009-2010.
- (8) Evolution equations: dissipation and dispersion, SNSB, 2008-2009

#### 9. Organizer/Coorganizer of scientific events

- (1) Workshop 7th Edition Mathematical Analysis, 15-17/01/2018, Universidad de Alicante, <https://dmat.ua.es/es/actividades/vii-jornadas-de-analisis-matematico.html>
- (2) Atelier de travail en Equations aux Dérivées Partielles, 13-14/12/2018, IMAR
- (3) Workshop for Young Researchers in Mathematics, Bucharest, May 17 - May 20, 2018, <http://math.univ-ovidius.ro/Workshop/2018/WYRM/#/>
- (4) Workshop Transitions de phase et equations non locales, 25-27/04/2018, IMAR, Bucharest <https://indico.math.cnrs.fr/event/3052/>
- (5) Workshop 6th Edition Mathematical Analysis, 24-26/01/2018, Universidad de Alicante, <https://dmat.ua.es/en/activities/6th-edition-mathematical-analysis.html>
- (6) Happy PDEs Days, Bucharest, December 7-8, 2017, IMAR, Bucharest
- (7) Workshop for Young Researchers in Mathematics, Bucharest, May 17 - May 20, 2017,
- (8) Happy PDEs Days, Bucharest, December 8-9, 2016, IMAR, Bucharest
- (9) Workshop for Young Researchers in Mathematics, Constanța, May 19 - May 22, 2016,
- (10) Workshop for Young Researchers in Mathematics, Constanța, May 21 - May 24, 2015,
- (11) Workshop for Young Researchers in Mathematics, Constanța, May 22 - May 23, 2014,
- (12) 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
- (13) Workshop for Young Researchers in Mathematics, Constanța, May 09 - May 10, 2013,
- (14) Workshop for Young Researchers in Mathematics, Constanța, May 10 - May 11, 2012,
- (15) Workshop for Young Researchers in Mathematics, Constanța, May 12 - May 13, 2011,
- (16) WORKSHOP ON PARTIAL DIFFERENTIAL EQUATIONS Bucharest, November 25-26, 2010
- (17) 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) Noi abordari in inegalitatile functionale si ecuatii de evolutie. PN-III-P1-1.1-TE2016-2233, ANCS-UEFICD, I.P. Cristian Cazacu
- (2) Typical and Nontypical Eigenvalue Problems for Some Classes of Differential Operators, ANCS-UEFICDI, PN-III-P4-ID-PCE-2016-0035, I.P. Mihai Mihailescu
- (3) Dynamics, Control And Numerics For Fractional Partial Differential Equations, University of Puerto Rico, FA9550-15-1-0027, IP. Mahamawi Warma, AFOSR Grant FA9550-15-1-0027, December 2014–November 2017 (Total: \$450,438)
- (4) 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
- (5) New analytical and numerical methods in wave propagation, NUMERIWAVES, FP7 - 246775, financed by European Research Council - ERC, IP E. Zuazua (Total: 58900 euros)
- (6) Partial Differential Equations: Analysis, Control, Numerics and Applications, MTM2011-29306, financed by the MICINN SPAIN, 2012-2014, IP E. Zuazua
- (7) Ecuaciones en Derivadas Parciales: Análisis, Control, Numérico y Aplicaciones, MTM2008-03541, MEC Spain, 2009-2011, 182300 euros, Grant Director Enrique Zuazua.
- (8) 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.
- (9) Desarrollo de aplicacion informatica para el diseño 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.
- (10) Analisis, aproximacion numerica y diseño 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.
- (11) 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.
- (12) 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.
- (13) 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 Pittsburgh, USA.

## 12. Presentations

- (1) 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
- (2) 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
- (3) 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
- (4) 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
- (5) 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
- (6) The Schrödinger equation on a tree, Universidad del País Vasco, 23/11/2018, Bilbao, Spain,
- (7) The Schrödinger equation on a tree, Universidad de Cantabria, 21/11/2018, Santander, Spain
- (8) Asymptotic behaviour for nonlocal diffusion-convection equations, Universidad Autonoma de Madrid, Spain, 25/10/2018
- (9) Asymptotic behaviour for nonlocal diffusion-convection equations, Workshop ICUB, U. Bucharest, 9 nov 2018
- (10) Asymptotic behaviour for fractional diffusion-convection equations, Workshop Analyse, analyse numérique et contrôle des milieux continus, Univ. of Bucharest, Romania, 21-23/05/2018
- (11) Asymptotic behaviour for fractional diffusion-convection equations, Ninth Itinerant Workshop in PDEs Institut de Mathématiques de Bordeaux, January 8-10, 2018
- (12) Asymptotic behaviour for fractional diffusionconvection equations, DeustoTech, 14/11/2017, Bilbao, Spain
- (13) Asymptotic behaviour for fractional diffusion-convection equations, Workshop on Pure and Applied Analysis, October 21, 2017, University of Craiova
- (14) Kuramoto-Sivashinsky equation on a strar-shaped tree. A controllability result, Oberwolfach, June 2017, Germany
- (15) Asymptotic behaviour for fractional diffusion- convection equations, UBB, Cluj, May 24, 2017
- (16) Asymptotic behaviour for fractional diffusion- convection equations, International Conference on Elliptic and Parabolic Problems, Gaeta, May 2017, Italy
- (17) "Flash" Dispersion on Trees, CIRM, June 2017, Franta
- (18) Dispersion property for Schrödinger equations, International Center for Advanced Studies, Buenos Aires, 26/04/2016
- (19) 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
- (20) Dispersion property for Schrödinger equations, Workshop on geometry and PDEs, 10-11 June 2016, West University of Timisoara, Romania 2016

- (21) Dispersion property for Schrödinger equations, The Eighth Congress of Romanian Mathematicians, Iasi, Romania, 2015
- (22) Dispersion property for Schrödinger equations, 24 April, 2015, San Juan, University of Puerto Rico, USA
- (23) Long-time behavior for nonlocal problems, Fri 17 April, 2015, San Juan, University of Puerto Rico, USA
- (24) Long-time behaviour for nonlocal problems, 12e Colloque Franco-Roumain de Mathmatiques Appliques, August 25-30, 2014, Universite de Lyon, Lyon, France.
- (25) Long-time behaviour for nonlocal problems, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 07 - July 11, 2014, Madrid, Spain
- (26) About nonlocal evolution equations, Meeting MTM, BCAM-Basque Center for Applied Mathematics, Bilbao, Spain, 13/06/2014.
- (27) Long-time behavior for nonlocal problems, Workshop for Young Researchers in Mathematics, University of Constanta, Romania, 22/05/2014
- (28) Long-time behaviour for a nonlocal convection-diffusion equation, Universite de Evry, 05/06/2014
- (29) "Nonlocal evolution equations", The second Kyushu-Euskadi Workshop on Applied Mathematics, Fukuoka, Japon, 12 nov 2013
- (30) "Nonlocal evolution equations", MTM Worshop, Basque Center for Applied Mathematics, 18th February, Bilbao, 2013
- (31) "Dispersion for Schrödinger equations", Pde's, Dispersion, Scattering theory and Control theory, Monastir, 10-14 June 2013
- (32) "Long-time behaviour for a nonlocal convection-diffusion equation", AMS Meeting, Alba Iulia, June 27 - 30, 2013
- (33) Dispersive properties for Schrödinger equations" la Universitatea din Craiova, 6/09/2012
- (34) Dispersion for Schrödinger equations, XI eme Colloque Franco-Roumain de Mathematiques Appliquees, 24-30/08/2012, Bucharest
- (35) Nonlocal evolution problems, XI eme Colloque Franco-Roumain de Mathematiques Appliquees, 24-30/08/2012, Bucharest
- (36) Dispersive properties for Schrödinger equations, Univ. Evry, France, 21 jun 2012.
- (37) Dispersive properties for Schrödinger equations, Partial differential equations, optimal design and numerics, Benasque, September 05, 2011
- (38) Open session on networks, Partial differential equations, optimal design and numerics, Benasque, Spain, September 06, 2011
- (39) Dispersive properties for Schrödinger equations, The Seventh Congress of Romanian Mathematicians, Brasov, June 29, 2011
- (40) Dispersive properties for Schrödinger equations, Workshop for Young Researchers in Mathematics, Constanta, May 12, 2011
- (41) Dispersive properties for Schrödinger equations, Seminário de Analise/EDP, Instituto de Matematica, Universidade Federal do Rio de Janeiro, April 14, 2011
- (42) Dispersive properties for Schrödinger equations, Seminário de Equações Diferenciais Parciais, IMPA, Rio de Janeiro, April 7, 2011
- (43) 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
- (44) Liviu Ignat, Null controllability of the heat equation on the Heinsenberg 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
- (45) Liviu Ignat, Strichartz estimates for the Schroedinger 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

- (46) Convergence rates for dispersive approximation schemes to nonlinear Schrödinger equations, 10eme Colloque Franco-Roumain de Mathematiques Appliquees, Poitiers, august 2010, Franta, plenary talk
- (47) A splitting method for nonlinear Schrödinger equation, 10eme Colloque Franco-Roumain de Mathematiques Appliquees, Poitiers, august 2010, France
- (48) Asymptotics for nonlocal evolution equations, Workshop on Partial differential equations, optimal design and numerics, 28 august 2009, Benasque, Huesca, Spain
- (49) Schrodinger equations on trees, MTM Workshop, Basque Center for Applied Mathematics, 1 iulie 2009, Bilbao, Spania
- (50) Splitting methods for Schrodinger equations, MTM Workshop, Basque Center for Applied Mathematics, 1 iulie 2009, Bilbao, Spania
- (51) Asymptotics for nonlocal evolution equations, Workshop on non-local equations, Leganes, Madrid, 29-30 iunie 2009.
- (52) A nonlocal convection-diffusion equation, Romanian - German Symposium on Mathematics and its Applications May 14 - 17, 2009, Sibiu (Romania)
- (53) Asymptotics for nonlocal evolution equations, Basque Center for Applied Mathematics, Bilbao, Spania, dec. 2008.
- (54) Asymptotics for nonlocal evolution equations, Universite de Picardie-Jules Verne, Amiens, France, sep. 2008.
- (55) A nonlocal convection diffusion equation, Exploratory Workshop on Asymptotic Analysis and Applications in Continuum Mechanics, Brașov, August 28- 30, 2008.
- (56) A nonlocal convection-diffusion equation, Universidad Complutense de Madrid, 4/03/2008.
- (57) 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
- (58) A nonlocal convection-diffusion equation, IMAR, Bucuresti, 13/11/2007.
- (59) 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
- (60) 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
- (61) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, Invited Conference, University Roma1 La Sapienza, Roma, 21/02/2007.
- (62) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, European Conference on Smart Systems, Roma, 26-28/10/2006.
- (63) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, International Congress of Mathematicians, Madrid, 22-30/08/2006.
- (64) Uniform Boundary Observability of a Two-Grid Method for the 2d-Wave Equation, Institute of Mathematics of Romanian Academy, Bucharest, 7-14/06/2006.
- (65) Numerical approximation scheme for dispersive equations, Workshop "Partial Differential Equations, Optimal Design and Numerics", Benasque, 28.08-09.09.2005.
- (66) 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.
- (67) 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.
- (68) Schrödinger equations, numerical approximation schemes and dispersive properties, The seminar of Applied Mathematics of Department of Mathematics of Universidad Autonoma de Madrid, Madrid, Spain.
- (69) Dispersive properties for numerical approximation of Schrödinger Equation, Universite de Tunis,Tunis, 30.04.2004.

- (70) Dispersive properties for numerical approximation of Schrödinger Equation, Midterm meeting of the TMR project "Homogenization and multiple scales", Heidelberg, Germany, 6-7/12/2002.
- (71) 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, Spainia.
- (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, Spania.
- (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 Decoposition 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.