



**Leopoldo Luis Martin
Rodriguez**

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Leopoldo L. Martin Rodriguez – Researcher in experimental optics and photonics.

Degree in physics in 2009 from La Laguna University (Spain) and PhD in 2013 from the same university. The thesis entitled: “Optical microresonators made out of rare earth doped glasses for optical applications” obtained the “Extraordinary PhD award” from La Laguna. Visiting PhD student at Universitat de Barcelona (2011) and University of Michigan (2012 and 2013). Teaching experience at la Laguna in undergrad school (2012 and 2013). From Nov 2013 up to Jul 2016 he has held a position as Postdoctoral Fellow at the Technion-Israel Institute of Technology in Prof. Tal Carmon´s Optomechanics Lab. Conducting research in solid state and liquid optical micro resonators and co-advising a team of 6 students and helping to set-up the optomechanics laboratory. From Jul 2016 up to May 2017, post-doc position (joint project by "Fundacion Galileo Galilei" and "Harvard University") of “Lasercomb Scientist” in charge of a frequency comb for high precision astronomical spectroscopy, for TNG HARPS-N, located in Roque de Los Muchachos Astrophysical Observatory.

From May 2017, postdoctoral researcher at the Valencia Nanophotonics Technology Center, working on optomechanical crystals.

Published papers (indexed journals): 37

H Index: 12 (Google Scholar, Jan 2018)

Reviewer for: Optics Express, Optics Letters and Optics & Laser Technology, Journal of Luminescence.



General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

H-index: 11 (ISI WoK); 12 (Google Scholar)

Accepted Papers: 38

Total Citations: 335 (ISI WoK); 442 (Google Scholar)

Papers in High Impact Factor (IF) journals:

1 Nature Photonics IF: 31.1

1 Nature Communications IF: 11.5

3 Optica IF: 5.2

1 Solar Energy Materials and Solar Cells IF: 5.03

1 Scientific Reports IF: 4.26

1 J. of Astronomical Telescopes, Instruments, and Systems IF: 3.5

7 Optics Express IF: 3.1

2 Optics Letters IF: 3.1

As Apr 2018

**Leopoldo Luis Martin Rodriguez**

Surname(s): **Martin Rodriguez**
 Name: **Leopoldo Luis**
 DNI: **42192771F**
 ORCID: **0000-0002-2085-6936**
 ScopusID: **55513618900**
 ResearcherID: **G-6033-2011**
 Loop: **302170**
 Date of birth: **16/07/1983**
 Gender: **Male**
 Nationality: **Spain**
 Country of birth: **Spain**
 Aut. region/reg. of birth: **Canary Islands**
 Contact province: **Valencia**
 City of birth: **S/C de la Palma**
 Contact address: **Nanophotonics Technology Center**
 Rest of contact address: **Edif 8F. Prim planta. Camí de Vera s/n**
 Postcode: **46022**
 Contact country: **Spain**
 Contact aut. region/reg.: **Valencian Community**
 Contact city: **Valencia**
 Land line phone: **(+34) 626029200**
 Email: **leopoldolmartin@gmail.com**
 Personal web page: **http://lmartin.webs.ull.es/**

Current professional situation

Employing entity: Universidad Politécnica de Valencia **Type of entity:** University
Department: Nanophotonics Technology Center
Professional category: Postdoctoral researcher
Email: leomarro@ntc.upv.es
Start date: 08/05/2017
Type of contract: Temporary **Dedication regime:** Full time
Performed tasks: Optomechanics

Previous positions and activities

	Employing entity	Professional category	Start date
1	Technion - Israel Institute of Technology	Posdoctoral Fellow	11/11/2013
2	Fundación Galileo Galilei	Posdoctoral Fellow at Laser Frequency Comb	04/07/2016
3	Universidad de La Laguna	PhD Student	01/03/2009



- 1** **Employing entity:** Technion - Israel Institute of Technology **Type of entity:** University Research Institute
Professional category: Postdoctoral Fellow
Start-End date: 11/11/2013 - 03/07/2016 **Duration:** 2 years - 8 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Primary (UNESCO code): 220900 - Optics
- 2** **Employing entity:** Fundación Galileo Galilei **Type of entity:** Foundation
Professional category: Postdoctoral Fellow at Laser Frequency Comb
Start-End date: 04/07/2016 - 15/05/2016
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Performed tasks: Upgrade of a high repetition rate, laser frequency comb for spectroscopic calibration.
- 3** **Employing entity:** Universidad de La Laguna **Type of entity:** University
Professional category: PhD Student
Start-End date: 01/03/2009 - 30/07/2013 **Duration:** 3 years - 5 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

Name of qualification: Licenciado en Ciencias Físicas
Degree awarding entity: Universidad de La Laguna **Type of entity:** University
Date of qualification: 26/02/2009

Doctorates

Doctorate programme: Física e informática
Degree awarding entity: Universidad de La Laguna **Type of entity:** University
City degree awarding entity: La Laguna, Canary Islands, Spain
Date of degree: 30/07/2013
DEA awarding entity: Universidad de La Laguna
Date DEA was awarded: 26/10/2010
Thesis title: Micro resonadores de vidrios dopados con tierras raras para aplicaciones ópticas
Thesis director: I.R. Martín
Thesis co-director: N.E. Capuj
Obtained qualification: Cum Laude

Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- Title of course/seminar:** Acreditación Profesor Ayudante Doctor
Organising entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Ciencias Experimentales
- Title of course/seminar:** B2 English
Organising entity: ACLES

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Hebrew	A1	A1			
Italian	B2	B2	A2	A2	A2
English	C1	C1	C1	C1	C1
Spanish	C2	C2	C2	C2	C2



Teaching experience

General teaching experience

- 1 Name of the course:** Física
University degree: Curso de Acceso a Mayores
End date: 31/05/2014
Hours/ECTS credits: 1,5
Entity: Universidad de la laguna
Type of hours/ ECTS credits: Credits
- 2 Name of the course:** Espectroscopía Óptica y Láser.
University degree: Grado en Física
End date: 31/05/2013
Hours/ECTS credits: 1,5
Entity: Universidad de la laguna
Faculty, institute or centre: Fisica
Type of hours/ ECTS credits: Credits

Teaching experience in courses and seminars for university teacher training

Type of event: Seminar
Name of the event: Optofluidic microcavities
Organising entity: University of California at San Diego. **Type of entity:** University
Hours of teaching: 2
Teaching date: 13/02/2016

Scientific and technological experience

Research and development groups/teams

- 1 Name of the group:** Optomechanics Lab - Water walled optofluidics
Aims of the group: Optomechanics. Fluid-optomechanics. Capillary optocavity.
Type of collaboration: Co-authorship of international collaboration
Affiliation entity: Technion
Start date: 01/11/2013
Type of entity: University Research Institute
Duration: 3 years - 3 months
- 2 Name of the group:** Thermally Enhanced Photoluminescence (TEPL) for photovoltaics
Affiliation entity: Technion
Start date: 01/11/2013
Type of entity: University
- 3 Name of the group:** Espectroscopía Láser y Altas Presiones
Aims of the group: Tierras raras en sólidos, propiedades ópticas (absorción y luminiscencia), condiciones extremas (alta presión y temperatura)
Name of principal investigator: Victor Lavin della Ventura
Number of members in the group: 11



City of group: San Cristóbal de La Laguna, Canary Islands, Spain

Affiliation entity: Universidad de La Laguna

Type of entity: University

Number of directed thesis: 6

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** SINTESIS Y CARACTERIZACION DE MATERIALES CON IONES LUMINESCENTES BAJO CONDICIONES EXTREMAS DE PRESION Y TEMPERATURA
Entity where project took place: Universidad de La Laguna **Type of entity:** University
Name principal investigator (PI, Co-PI...): Victor Lavin della Ventura
Nº of researchers: 14
Funding entity or bodies: Ministerio de Ciencia e Innovación. Investigación **Type of entity:** MAT2010-21270-C04-02
City funding entity: Madrid, Community of Madrid, Spain
Start-End date: 13/12/2010 - 13/12/2013
Total amount: 180.000 €
- 2** **Name of the project:** Circle of light: from nonlinear and quantum optics to sensing and imaging. Grant no. 1902/12
Entity where project took place: Technion and Weizmann Institute of Science **Type of entity:** University Centres and Structures and Associated Bodies
City of entity: Haifa, Israel
Name principal investigator (PI, Co-PI...): Segev Mordechai
Start date: 01/01/2014
- 3** **Name of the project:** Optomechanics with liquids. Grant no. 2013/15
Entity where project took place: Technion **Type of entity:** University Research Institute
City of entity: Haifa, Israel
Name principal investigator (PI, Co-PI...): Tal Carmon
Nº of researchers: 7
Funding entity or bodies: Israel Science Foundation **Type of entity:** State agency
Start date: 01/06/2013
Total amount: 3.000.000 €



Results

Industrial and intellectual property

- 1 Title registered industrial property:** METHOD AND SYSTEM FOR MAINTAINING AND ANALYZING A MICRO-DROPLET
Inventors/authors/obtainers: Tal Carmon; L. L. Martin; Shai MAAYANI; Daniel BAR-DAVID; Sarah-Tehila ATTAR
Nº of application: 14/969,141,
Country of inscription: United States of America
Date of register: 15/11/2015
- 2 Title registered industrial property:** Optical very large scale integration [O-VSLI] by optical tweezing of fluids.
Entity holder of rights: Technion
Nº of application: 1635
Date of register: 10/08/2014

Scientific and technological activities

Scientific production

H index: 12

Date of application: 08/01/2018

Publications, scientific and technical documents

- 1** D. Navarro-Urrios; N.E. Capuj; J. Maire; M. Colombano; J. Jaramillo-Fernandez; E. Chavez-Angel; L. L. Martin; L. Mercadé; A. Griol; A. Martínez; C. M. Sotomayor-Torres; J. Ahopelto. Nanocrystalline silicon optomechanical cavities. Optics Express. 26 - 8, pp. 9829. OSA, 05/04/2018.
Type of production: Scientific paper **Format:** Journal
- 2** M Douvidzon; S. Maayani; L.L. Martin; T. Carmon. Light and Capillary Waves Propagation in Water Fibers. Scientific reports. 7 - 1, pp. 16633. Nature, 30/11/2017.
Type of production: Scientific paper
Corresponding author: No
- 3** Aakash Ravi; David F. Phillips; Matthias Beck; Leopoldo L. Martin; Massimo Cecconi; Adriano Ghedina; Emilio Molinari; Albrecht Bartels; Dimitar Sasselov; Andrew Szentgyorgyi; Ronald L. Walsworth. Astro-comb calibrator and spectrograph characterization using a turn-key laser frequency comb. Journal of Astronomical Telescopes, Instruments, and Systems. 3 - 4, SPIE, 17/11/2017.
Type of production: Scientific paper
- 4** D. Bar-David; S. Maayani; L.L. Martin; T. Carmon. Fluidic vortices generated from optical vortices in a microdroplet cavity. Under Review. 01/07/2017.
Type of production: Scientific paper

Corresponding author: No

- 5** L.L. Martin; S. Kaminski; S. Maayani; T. Carmon. Optical cooling of capillary waves. Under Review. 01/07/2017.
Type of production: Scientific paper
Corresponding author: Yes
- 6** L. Labrador-Paez; K. Soler-Carracedo; M. Hernandez-Rodriguez; I. R. Martin; T. Carmon; L.L. Martin. Liquid whispering-gallery-mode resonator as a humidity sensor. Optics Express. 25 - 2, pp. 1165 - 1172. 20/01/2017.
Type of production: Scientific paper
Corresponding author: Yes
- 7** S. Kaminski; L.L. Martin; S. Maayani; T. Carmon. Ripplon laser through stimulated emission mediated by water waves. Nature Photonics. 10, pp. 758 - 761. 21/11/2016.
Type of production: Scientific paper
Corresponding author: Yes
- 8** Sarah T. Attar; Vladimir Shuvayev; Lev Deych; Leopoldo L. Martin; Tal Carmon. Level-crossing and modal structure in microdroplet resonators. Optics Express. 24 - 12, pp. 13134 - 13141. OSA, 13/06/2016. Available on-line at: <<http://www.opticsexpress.org/abstract.cfm?URI=oe-24-12-13134>>.
Type of production: Scientific paper **Format:** Journal
- 9** S. Maayani; L.L. Martin; S. Kaminski; T. Carmon. Cavity Optocapillaries. Optica. 3 - 5, pp. 552 - 555. OSA, 05/2016. Available on-line at: <<http://dx.doi.org/10.1364/OPTICA.3.000552>>.
Type of production: Scientific paper
- 10** Dahan, R; Martin, L.L.; Carmon, T. Droplet Optomechanics. Optica. 3 - 2, pp. 175 - 178. 08/02/2016.
Type of production: Scientific paper
- 11** Moore, J.; Martin, L.L.; Maayani, S.; Hyum Kim, K.; Chandrahilim, H.; Eichenfield, M.; Martin, I.R.; Carmon, T. Regular Oscillations and Random Motion of Glass Microspheres Levitated by a Single Optical Beam in Air. Optics Express. 24 - 3, pp. 2850 - 2857. 03/02/2016.
Type of production: Scientific paper **Format:** Journal
- 12** Shay, M.; Martin, L.L.; Carmon, T. Water-walled microfluidics for high-optical finesse cavities. Nature Communications. 7 - 10435, 22/01/2016. Available on-line at: <[10.1038/ncomms10435](https://doi.org/10.1038/ncomms10435)>.
Type of production: Scientific paper **Format:** Journal
- 13** S. Kaminski; L.L. Martin; T. Carmon. Tweezers controlled resonator. Optics Express. 23 - 22, pp. 28914 - 28919. 02/11/2015.
Type of production: Scientific paper
- 14** Manor, A.; Martin, L.; Rotschild, C. Conservation of photon rate in endothermic photoluminescence and its transition to thermal emission. Optica. 2 - 6, pp. 585 - 588. OSA, 18/06/2015. Available on-line at: <[10.1364/OPTICA.2.000585](https://doi.org/10.1364/OPTICA.2.000585)>.
Type of production: Scientific paper **Format:** Journal
- 15** Shay, M.; Martin, L.L.; Carmon, T. Optical Binding in White Light. Optics Letters. 40 - 8, pp. 1818 - 1821. OSA, 15/04/2015. ISSN 0146-9592
Type of production: Scientific paper **Format:** Journal



- 16** J. Llanos; R. Castillo; I.R. Martín; L.L. Martín; P. Haro-González; J. González-Platas. Energy transfer processes in Eu³⁺ doped nanocrystalline La₂TeO₆ phosphor. *Journal of Luminescence*. 145, pp. 553 - 556. 2014. Available on-line at: <10.1016/j.jlumin.2013.08.005>. ISSN 0022-2313
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** OPTICS
Impact index in year of publication: 2.144 **Journal in the top 25%:** Yes
Position of publication: 18 **No. of journals in the cat.:** 80
- 17** C. Perez-rodriguez; L.L. Martin; S.F. Leon-Luis; IR Martín; K Kiran Kumar; CK Jayasankar. Relevance of radiative transfer processes on Nd³⁺ doped phosphate glasses for temperature sensing by means of the fluorescence intensity ratio technique. *Sensors and Actuators: B*. 195, pp. 324 - 331. Elsevier, 2014. Available on-line at: <10.1016/j.snb.2014.01.037>. ISSN 0925-4005
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 3.84
- 18** M.A. Hernandez-Rodriguez; M.H. Imanieh; L.L. Martin; I.R. Martin. Experimental enhancement of the photocurrent in a solar cell using upconversion process in fluoroindate glasses exciting at 1480 nm. *Solar Energy Materials and Solar Cells*. 116, pp. 171 - 175. Elsevier, 2013.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
Impact source: ISI **Category:** PHYSICS, APPLIED
Impact index in year of publication: 5.03 **Journal in the top 25%:** Yes
Position of publication: 16 **No. of journals in the cat.:** 128
- 19** L.L. Martín; S. Leon-Luis; C. Perez-Rodriguez; I.R. Martin; U. Rodriguez-Mendoza; V. Lavin. High pressure tuning of whispering gallery mode resonances in a neodymium doped glass microsphere. *Journal of the Optical Society of America B*. 130 - 12, pp. 3254 - 3259. 2013. Available on-line at: <10.1364/JOSAB.30.003254>.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** OPTICS
Impact index in year of publication: 2.210 **Journal in the top 25%:** Yes
Position of publication: 16 **No. of journals in the cat.:** 80
- 20** L.L. Martin; D. Navarro-urrios; F Ferrarese-Lupi; C Pérez-Rodríguez; I R Martín; J. Montserrat; C Dominguez; B Garrido; N. Capuj. Laser emission in Nd³⁺ doped barium-titanium-silicate microspheres under continuous and chopped wave pumping in a non-coupled pumping scheme. *Laser Physics*. 23 - 7, 2013.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** Science Edition - OPTICS
Impact index in year of publication: 2.545 **Journal in the top 25%:** Yes
Position of publication: 13 **No. of journals in the cat.:** 80
- 21** L.L. Martin; S. Rios; I.R. Martin; P. Haro-González; J.M. Cáceres; A. Hernández-Creus. Nanocrystal formation using laser irradiation on Nd³⁺ doped barium titanium silicate glasses. *Journal of Alloys and Compounds*. 553, pp. 35 - 39. 2013.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 2.390 **Journal in the top 25%:** Yes
Position of publication: 49 **No. of journals in the cat.:** 241



- 22** C. Pérez-Rodríguez; M.H. Imanieh; L.L. Martín; S. Ríos; I.R. Martín; Bijan Eftekhari Yekta. Study of the focusing effect of silica microspheres on the upconversion of Er³⁺-Yb³⁺ codoped glass ceramics. *Journal of Alloys and Compounds*. 576, pp. 363 - 368. 2013. Available on-line at: <10.1016/j.jallcom.2013.05.222>.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 2.390 **Journal in the top 25%:** Yes
Position of publication: 49 **No. of journals in the cat.:** 241
- 23** C.J. Pérez Rodríguez; S. Ríos; I. R. Martín; L.L Martín; P. Haro González; D. Jaque. Upconversion emission obtained in Yb³⁺-Er³⁺ doped fluorindate glasses using silica microspheres as focusing lens. *Optics Express*. 21 - 9, pp. 10667 - 10675. Optical Society of America, 2013. Available on-line at: <10.1364/OE.21.010667>.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** OPTICS
Impact index in year of publication: 3.546 **Journal in the top 25%:** Yes
Position of publication: 5 **No. of journals in the cat.:** 80
- 24** D. Navarro-Urrios; M. Baselga; F. Ferrarese Lupi; L.L. Martín; C. Perez-Rodriguez; V. Lavin; I.R. Martín; B. Garrido; N.E. Capuj. Local characterization of rare-earth doped single microspheres by combined microtransmission and microphotoluminescence techniques. *J. Opt. Soc. Am. B*. 29 - 12, pp. 3293. OSA, 2012.
Type of production: Scientific paper **Format:** Journal
- 25** L.L. Martín; S. Ríos; I.R. Martín; P. Haro-Gonzalez; J.M. Caceres; A. Hernandez-Creus. Nanocrystal formation using laser irradiation on Nd³⁺ doped barium titanium silicate glasses. *Journal of Alloys and Compounds*. 553 - 15, pp. 35 - 39. ELSEVIER, 2012.
Type of production: Scientific paper **Format:** Journal
- 26** P. Haro-González, I. R. Martín, L. L. Martín, V. Lavín, S. F. León-Luis. Characterization of Er³⁺ and Nd³⁺ doped strontium barium niobate glass-ceramic as temperature sensors. *Optical Materials*. 33 - 5, pp. 742 - 745. Elsevier Science BV, 2011. ISSN 0304-4289
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 1.728 (2009)
- 27** P.Haro-González, L.L. Martín, M.Berkowski and W.Ryba-Romanowski. Optical amplification properties of Dy³⁺-doped Gd₂SiO₄, LuSiO₅ and YAl₃(BO₃)₄ single crystal. *APPLIED PHYSICS B-LASERS AND OPTICS*. 103, pp. 597 - 602. Springer, 2011. ISSN 1361-648X
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** OPTICS
Impact index in year of publication: 1.782 **Journal in the top 25%:** No
Position of publication: 28 **No. of journals in the cat.:** 80
- 28** L. L. Martín; P. Haro-González; I. R. Martín. Optical properties of transparent Dy³⁺ doped Ba₂TiSi₂O₈ glass ceramic. *Optical Materials*. 33 - 5, pp. 738 - 741. Elsevier, 2011. ISSN 0304-4289
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 1.679(2010)



- 29** P. Haro-González, L. L. Martín, C. Pérez-Rodríguez. I. R. Martín and A. Mujica. Optical study of the effect of the impurity content on the ferroelectric properties of Er³⁺ doped SBN glass-ceramic samples. *Journal of Applied Physics*. 110, pp. 84113 - 84113. 2011.
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** PHYSICS, APPLIED
Impact index in year of publication: 2.210 **Journal in the top 25%:** No
Position of publication: 32 **No. of journals in the cat.:** 128
- 30** P. Haro-González, M. Pedroni, F. Piccinelli, L.L. Martín, S. Polizzi, M. Giarola, G. Mariotto, ...Synthesis, characterization and optical spectroscopy of Eu³⁺ doped titanate nanotubes. *Journal of Luminescence*. 131 - 12, pp. 2473 - 2477. Elsevier, 2011.
Type of production: Scientific paper **Format:** Journal
- 31** Martín, L. L.; Martín, I. R.; Haro-González, P. Transfer and backtransfer processes in Yb³⁺-Er³⁺ codoped Strontium Barium Niobate glass-ceramics. *Journal of Luminescence*. 131 - 12, pp. 2446 - 2450. 2011.
Type of production: Scientific paper **Format:** Journal
- 32** L. L. Martín; C. Pérez-Rodríguez; P. Haro-González; I. R. Martín. Whispering gallery modes in a glass microsphere as a function of temperature. *Optics Express*. 19 - 25, pp. 25792 - 25798. 2011.
Type of production: Scientific paper **Format:** Journal
- 33** L.L.Martin, P.Haro-Gonzalez, I.R. Martín, D. Navarro-Urrios, D. Alonso, C. Pérez-Rodríguez, D. Jaque and N. Whispering gallery modes in glass microsphere: Optimization of pipping in a modified confocal microscope. *Optics Letters*. 36, pp. 615 - 617. Elsevier Science BV, 2011. ISSN 0146-9592
Type of production: Scientific paper **Format:** Journal
Impact source: ISI **Category:** OPTICS
Impact index in year of publication: 3.385 **Journal in the top 25%:** Yes
Position of publication: 6 **No. of journals in the cat.:** 80
- 34** P. Haro-González, I.R. Martín, L.L. Martín, D. Kowalska, J.M. Cáceres. Crystallization effect on Tm³⁺-Yb³⁺ codoped SBN glass ceramics. *Optical Materials*. 32, pp. 1385 - 1388. Elsevier, 2010. ISSN 0925-3467
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 1.679
- 35** P. Haro-González; I. R. Martín; S. González-Pérez; L. L. Martín; F. Lahoz. FEMTOSECOND LASER MODIFICATION ON STRONTIUM BARIUM NIOBATE GLASSES DOPED WITH Er(3+) IONS. *Ceramic Materials and Components for Energy and Environmental Applications*. 210, pp. 573 - 578. Wiley, 2010.
Type of production: Scientific paper **Format:** Journal
- 36** P. Haro-González, L. L. Martín, S. González-Pérez, I. R. Martín. Formation of Nd³⁺ doped strontium barium niobate nanocrystals by two different methods. *Optical Materials*. 32 - 10, pp. 1389 - 1392. Elsevier Science BV, 2010. ISSN 0925-3467
Type of production: Scientific paper **Format:** Journal
Impact source: ISI
Impact index in year of publication: 1.679
- 37** L.L. Martín; P. Haro-González; I.R. Martín; D. Puerto; J. Solís; J.M. Cáceres; N.E. Capuj. Local devitrification of Dy³⁺ doped Ba₂TiSi₂O₈ glass by laser irradiation. *Optical Materials*. 33, pp. 186 - 190. Elsevier, 2010. ISSN 0925-3467



Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.679

Format: Journal

- 38** P. Haro-González, L. L. Martín, I. R. Martín, G. Grazyna Dominiak-Dzik, W. Ryba-Romanowski. Pump and Probe measurements of optical amplification at 584 nm in dysprosium doped lithium niobate crystal. *Optical Materials*. 33 - 2, pp. 196 - 199. Elsevier Science BV, 2010. ISSN 0925-3467

Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.679

Format: Journal

- 39** P. Haro-González, I. R. Martín, S. González-Pérez, L. L. Martín, F. Lahoz, D. Puerto, J. Solís. Structural changes induced on strontium barium niobate glass by femtosecond laser irradiation. *Applied Physics A*. 98, pp. 879 - 884. Springer, 2010. ISSN 0947-8396

Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.765

Format: Journal

- 40** T. Widemann; B. Sicardy; R. Dusser;; L.L. Martín-Rodríguez. Titanias radius and an upper limit on its atmosphere from the September 8, 2001 stellar occultation. *Icarus*. 199 - 2, pp. 458 - 476. Elsevier, 2009.

Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.340

Format: Journal

Works submitted to national or international conferences

- 1** **Title of the work:** Ripplon Lasers
Name of the conference: The 34th Israeli Conference on Mechanical Engineering
City of event: Haifa, Israel
Date of event: 22/11/2016
End date: 23/11/2016
Organising entity: Technion
Type of entity: University
 S. Maayani; S. Kaminski; L.L. Martín; T. Carmon.

- 2** **Title of the work:** Cavity optocapillary.
Name of the conference: Coherent Control of Complex Quantum Systems
Corresponding author: No
City of event: Okinawa, Japan
Date of event: 17/04/2016
End date: 22/04/2016
Organising entity: OIST Graduate University
 T. Carmon; L. L. Martín; S. Kaminski; S. Maayani.

- 3** **Title of the work:** Sideband cooling of capillary waves.
Name of the conference: Coherent Control of Complex Quantum Systems
Corresponding author: Yes
City of event: Okinawa, Japan
Date of event: 17/04/2016



End date: 22/04/2016

Organising entity: OIST Graduate University

L. L. Martin; S. Kaminski; S. Maayani; T. Carmon.

- 4** **Title of the work:** Optocapillary waves.
Name of the conference: COST MP1205 General Meeting and Conference
Corresponding author: No
City of event: Istambul, Turkey
Date of event: 11/04/2016
End date: 13/04/2016
Organising entity: Koç University **Type of entity:** University
T. Carmon; L. L. Martin; S. Kaminski; S. Maayani.
- 5** **Title of the work:** Sideband cooling of capillary waves.
Name of the conference: COST MP1205 General Meeting and Conference
Corresponding author: Yes
City of event: Istambul, Turkey
Date of event: 11/04/2016
End date: 13/04/2016
Organising entity: Koç University **Type of entity:** University
L. L. Martin; S. Kaminski; S. Maayani; T. Carmon.
- 6** **Title of the work:** Droplet's Acoustics
Name of the conference: Photonic West
City of event: San Francisco, United States of America
Date of event: 14/02/2016
End date: 18/02/2016
Organising entity: SPIE
R. Dahan; L. L. Martin; T. Carmon.
- 7** **Title of the work:** Optical binding in white light
Name of the conference: Photonic West
City of event: San Francisco, United States of America
Date of event: 14/02/2016
End date: 18/02/2016
Organising entity: SPIE
- 8** **Title of the work:** Tweezers controlled resonator.
Name of the conference: Photonic West
City of event: San Francisco,
Date of event: 14/02/2016
End date: 18/02/2016
Organising entity: SPIE
- 9** **Title of the work:** Water-walled microfluidics and Optomechanical gas
Name of the conference: Photonic West
City of event: San Francisco, United States of America
Date of event: 14/02/2016
End date: 18/02/2016
Organising entity: SPIE
L. L. Martin; S. Maayani; T. Carmon.



- 10** **Title of the work:** Water - walled microfluidics
Name of the conference: I-Core workshop
City of event: Maale Hahamisha, Israel
Date of event: 04/11/2015
End date: 05/11/2015
Organising entity: Israel Science Foundation
S. Maayani; L.L. Martin; R. Dahan; S. Kaminski; T. Carmon.
- 11** **Title of the work:** Liquid - Walled Optical MEMS.
Name of the conference: International Conference on Optical MEMS and Nanophotonics
City of event: Jerusalem, Israel
Date of event: 02/08/2015
End date: 05/08/2015
Organising entity: Israel Science Foundation
R. Dahan; L.L. Martin; S. Maayani; T. Carmon.
- 12** **Title of the work:** Liquid optomechanics for giant quality factors
Name of the conference: ONNA: Optical Nanofibre Applications
City of event: Okinawa, Japan
Date of event: 25/05/2015
End date: 28/05/2015
Organising entity: OIST Graduate University **Type of entity:** University
S. Kaminski; T. Carmon; L.L. Martin; R. Dahan; S. Maayani.
- 13** **Title of the work:** Thermally Enhanced Photoluminescence for Efficient Photovoltaics
Name of the conference: 2014 IEEE 28-th CONVENTION OF ELECTRICAL AND ELECTRONICS ENGINEERS IN ISRAEL
City of event: EILAT, Israel
Date of event: 04/12/2014
End date: 05/12/2014
Organising entity: IEEE
Manor, A.; Martin, L.L.; Rostchild, C.
- 14** **Title of the work:** Optomechanical Gas
Name of the conference: 2014 IEEE Photonics Conference
City of event: San Diego, CA, United States of America
Date of event: 12/10/2014
End date: 16/10/2014
Organising entity: IEEE
- 15** **Title of the work:** Diseño de un monocromador de alta resolución para el análisis de señales ópticas
Name of the conference: XXIX Simposium Nacional de la Unión Científica Internacional de Radio
City of event: Valencia, Spain
Date of event: 03/09/2014
End date: 05/09/2014
Organising entity: Universitat Politècnica de Valencia
M. F. Guerra Medina; F. Rivera López; L. L. Martín; V. Lavín; I. R. Martín; N. E. Capuj; O. González Hernández.



- 16** **Title of the work:** Clustering of Aerosols in a Single Potential-well Trap
Name of the conference: Taking Detection to the Limit: Biosensing with Optical Microcavities
City of event: Bad Honnef, Germany
Date of event: 14/04/2014
End date: 18/04/2014
Organising entity: Max Planck Institute
Martin, L.L.; Moore, J.; Kim, K.H.; Eichenfield, M.; Carmon, T.
- 17** **Title of the work:** Optical binding of aerosols with white light
Name of the conference: Taking Detection to the Limit: Biosensing with Optical Microcavities
City of event: Bad Honnef, Germany
Date of event: 14/04/2014
End date: 18/12/2014
Organising entity: Max Planck Institute
Maayani, S.; Martin, L.L.; Carmon, T.
- 18** **Title of the work:** Clustering of Aerosols in a Single Potential-well Trap
Name of the conference: NanoIsrael 2014
City of event: Tel Aviv, Israel
Date of event: 24/03/2014
End date: 25/03/2014
Organising entity: Israel National Nanotechnology Initiative
Martin, L.L.; Moore, J.; Kim, K.H.; Eichenfield, M.; Carmon, T.
- 19** **Title of the work:** Clustering of Aerosols in a Single Potential-well Trap
Name of the conference: French-Israeli Symposium in Physics
City of event: Jerusalem, Israel
Date of event: 19/03/2014
End date: 20/03/2014
Organising entity: The Israel Academy of Sciences
Martin, L.L.; Moore, J.; Kim, K.H.; Eichenfield, M.; Carmon, T.
- 20** **Title of the work:** Optical binding of aerosols with white light
Name of the conference: French-Israeli Symposium in Physics
City of event: Jerusalem, Israel
Date of event: 19/03/2014
End date: 20/03/2014
Organising entity: The Israel Academy of Sciences
Maayani, S.; Martin, L.L.; Carmon, T.
- 21** **Title of the work:** Applications of transparent microspheres: temperature optical sensors and focusing lenses to produce submicron spots
Name of the conference: International Conference on Advanced Functional Materials ICAFM 2014
City of event: Thiruvananthapuram, India, India
Date of event: 19/02/2014
Organising entity: CSIR-National Institute for interdisciplinari Science and Technology
I. R. Martín; S. Ríos; C. Pérez-Rodríguez; L. L. Martín; S. F. León-Luis; V. Lavín; V. Venkatram.
- 22** **Title of the work:** Clustering of Aerosols in a Single Potential-well Trap
Name of the conference: Photonics West. OPTO
City of event: San Francisco. California, United States of America

Date of event: 01/02/2014

End date: 01/02/2014

Organising entity: SPIE

Moore, J.; Martin, L.L.; Kim, K.H.; H. Chandralalim; Eichenfield, M.; Martin, IR; Carmon, T.

23 Title of the work: Clustering of Aerosols in a Single Potential-well Trap

Name of the conference: Frontiers in Optics 2013

City of event: Orlando, United States of America

Date of event: 08/10/2013

Organising entity: OSA

Jeremy Moore; Leopoldo L. Martin; Kyu Hyun Kim; Hengky Chandralalim; Matt Eichenfield; Inocencio R. Martin; Tal Carmon.

24 Title of the work: High pressure tuning of whispering gallery mode resonances in a neodymium doped glass microsphere

Name of the conference: European High Pressure Research Group International Meeting (EHPRG51)

City of event: Inner London, United Kingdom

Date of event: 01/09/2013

End date: 06/09/2013

Organising entity: Queen Mary University

L.L. Martin; S. F. León-Luis; C. Pérez-Rodríguez; I. R. Martín; U. R. Rodríguez-Mendoza; V. Lavín.

25 Title of the work: Upconversion emission in rare earth doped materials under near infrared excitation using silica microspheres as focusing lenses

Name of the conference: WIO 2013 IEEE International workshop on Information Optics

City of event: Puerto de la Cruz, Canary Islands, Spain,

Date of event: 15/07/2013

Organising entity: Committee WIO

I. R. Martín; S. Rios; C. Pérez-Rodríguez; L. L. Martín.

26 Title of the work: Microspheres made from erbium doped barium titanium silicate glass as an active and passive optical micro-resonator

Name of the conference: 8th International Conference on f-Elements

City of event: Udine, Friuli-Venezia Giulia, Italy

Date of event: 26/08/2012

Organising entity: University of Udine

Type of entity: University

L.L. Martin; D. Navarro-Urrios; F. Ferraraze-Lupi; I. R Martin; C. Pérez-Rodríguez; N. E. Capuj.

27 Title of the work: Upconversion emission obtained in Yb³⁺-Er³⁺ doped fluoroindate glasses using silica microspheres as focusing lens

Name of the conference: 8th International Conference on f-Elements

City of event: Udine, Friuli-Venezia Giulia, Italy

Date of event: 26/08/2012

Organising entity: University of Udine

Type of entity: University

C. Pérez-Rodríguez; S. Rios; I. R. Martin; L.L. Martin; P. Haro-González; D. Jaque.

28 Title of the work: Combination of optical microtransmission and microphotoluminescence techniques for local characterization of rare earth doped glass microspheres

Name of the conference: Trends in Nano Technology TNT 2011

Type of event: Conference

Type of participation: Participatory - others



City of event: Tenerife, Spain

Date of event: 25/11/2011

D. Navarro-Urrios; M. Baselga; F. Ferrarese Lupi; L.L. Martín; C.J. Pérez-Rodríguez; I.R. Martín; C. Vasconcelos; N.E. Capuj.

- 29 Title of the work:** Behavior of whispering gallery modes in glass microspheres as a function of temperature
Name of the conference: 4th EOS Topical Meeting on Optical Microsystems (OμS'11)

Type of event: Conference

Type of participation: Participatory - others

Date of event: 26/09/2011

Organising entity: Capri (Italia)

C.J. Pérez-Rodríguez, L.L. Martín, D. Navarro-Urrios, F. Ferrarese Lupi, P. Haro-González, I.R. Mart.

- 30 Title of the work:** Laser emission at 1060nm in Nd⁽³⁺⁾ doped glass microspheres without coupling devices.

Name of the conference: 2nd EOS Topical Meeting on Lasers (ETML11) 4th EOS Topical Meeting on Optical Microsystems (OμS'11)

Type of event: Conference

Type of participation: Participatory - others

City of event: Capri, Italy

Date of event: 26/09/2011

End date: 30/09/2011

Organising entity: EOS

L.L. Martín; C.J. Pérez-Rodríguez; D. Navarro-Urrios; F. Ferrarese Lupi; P. Haro-González; I.R. Martín.

- 31 Title of the work:** Synthesis, Characterization And Optical Spectroscopy Of Eu³⁺ Doped Titanate Nanotubes

Name of the conference: 16th International Conference on Luminescence and Optical Spectroscopy of Condensed Matter

Type of event: Conference

Type of participation: Participatory - others

Date of event: 27/06/2011

Organising entity: Ann Arbor (EEUU)

P. Haro-González, M. Pedroni, L. L. Martín, F. Piccinelli, I. R. Martín, S. Polizzi, M. Bettinelli,.

- 32 Title of the work:** Whispering Gallery Modes In A GlassMicrosphere: Optimization Of Pumping In A Modified Confocal Microscope

Name of the conference: 16th International Conference on Luminescence and Optical Spectroscopy of Condensed Matter

Type of event: Conference

Type of participation: Participatory - others

City of event: Ann Arbor, United States of America

Date of event: 27/06/2011

Organising entity: Michigan University

Type of entity: University

L.L. Martín; P. Haro-González; I. R. Martín; D. Navarro-Urrios; D. Alonso; C. Pérez.

- 33 Title of the work:** Direct writing glass ceramics lines in glass samples by laser irradiation

Name of the conference: Dynamical Processes in Excited States of Solids (DPC10)

City of event: Argonne, United States of America

Date of event: 20/06/2010

P. Haro-González; D. Kowalska; L.L. Martín; I.R. Martín.



- 34** **Title of the work:** Local devitrification of Dy³⁺ doped Ba₂TiSi₂O₈ glass by laser irradiation
Name of the conference: 3rd WORKSHOP ON PHOTOLUMINESCENCE IN RARE EARTHS
City of event: Florencia, Italy
Date of event: 29/04/2010
Organising entity: SIOF
L.L. Martín; P. Haro-González; J. M. Cáceres; N. E. Capuj; I. R. Martín.
- 35** **Title of the work:** Pump and Probe measurement of optical amplification at 575 nm in dysprosium doped lithium niobate crystal
Name of the conference: 3rd WORKSHOP ON PHOTOLUMINESCENCE IN RARE EARTHS
City of event: Florencia, Italy
Date of event: 29/04/2010
Organising entity: SIOF
P. Haro-González, L.L. Martín, I. R. Martín, G. Grazyna Dominiak-Dzik and W. Ryba-Romanowski.
- 36** **Title of the work:** Writing Strontium Barium Niobate nanocrystals lines in glass matrix by laser irradiation
Name of the conference: 3rd WORKSHOP ON PHOTOLUMINESCENCE IN RARE EARTHS
City of event: Florencia, Italy
Date of event: 29/04/2010
Organising entity: SIOF
P. Haro-González, I.R. Martín, L. L. Martín, Alberto Hernández Creus.
- 37** **Title of the work:** Optical Properties of Transparent Dy³⁺ Doped Ba₂TiSi₂O₈ Glass-Ceramic
Name of the conference: 5th Laser Ceramics Symposium: International Symposium on Transparent Ceramics for Photonics Applications
Type of event: Conference
Type of participation: 'Participatory - poster
Date of event: 09/12/2009
Organising entity: Bilbao
L.L. Martín, P. Haro-González, J.M. Cáceres. A.D. Lozano-Gorrín and I.R. Martín.
- 38** **Title of the work:** Characterization of the Er³⁺ and Nd³⁺ doped strontium barium niobate glass-ceramic as temperature sensor.
Name of the conference: 5th Laser Ceramics Symposium: International Symposium on Laser Transparent Ceramics for Photonics Applications.
Type of event: Conference
Type of participation: Participatory - others
Date of event: 01/12/2009
Organising entity: Bilbao, España
P. Haro-González, I. R. Martín, L.L. Martín and V. Lavín.
- 39** **Title of the work:** Analysis of the upconversion mechanisms using a double pulse laser experiment with a variable temporal delay between pulses
Name of the conference: 5th International Symposium on Laser, Scintillator and Non Linear Optical Material
City of event: Pisa, Italy
Date of event: 03/09/2009
I. R. Martín, P. Haro-González and L. L. Martín.



- 40** **Title of the work:** Crystallization effect on Tm³⁺-Yb³⁺ codoped SBN glass ceramic Tipo de participación: Poster
Name of the conference: 5th International Symposium on Laser, Scintillator and Non Linear Optical Material
City of event: Pisa, Italy
Date of event: 03/09/2009
P. Haro-González, I. R. Martín, L. L. Martín, D. Kowalska and J.M. Caceres.
- 41** **Title of the work:** Formation of Nd³⁺ doped Strontium Barium Niobate nanocrystals by two different methods
Name of the conference: 5th International Symposium on Laser, Scintillator and Non Linear Optical Material
City of event: Pisa, Italy
Date of event: 03/09/2009
P. Haro-González, L. L. Martín, S. González-Pérez and I. R. Martín.
- 42** **Title of the work:** Study of nanostructure distribution of Er³⁺-Yb³⁺ codoped on SiO₂/Si thin film
Name of the conference: 5th International Symposium on Laser, Scintillator and Non Linear Optical Material
City of event: Pisa, Italy
Date of event: 03/09/2009
Organising entity: EOS
P. Haro-González, I.R. Martín, L.L. Martín, D. Muñoz, J. Gonzalo, C.N. Afonso, F. Lahoz, N.E. Capuj.
- 43** **Title of the work:** Transfer and back transfer processes in Yb³⁺-Er³⁺ codoped Strontium Barium Niobate glass-ceramics
Name of the conference: 5th International Symposium on Laser, Scintillator and Non Linear Optical Material
City of event: Pisa, Italy
Date of event: 03/09/2009
L. L. Martín; P. Haro-González, I.R. Martín, A. Martínez-Javaloy and A. Mújica.
- 44** **Title of the work:** Nanocrystals formation on Ho³⁺ doped Strontium Barium Niobate glass by thermal treatment and laser irradiation
Name of the conference: 18th International Laser Physics
City of event: Barcelona, Spain
Date of event: 13/07/2009
P. Haro-González, S. González-Pérez, L. L. Martín and I. R. Martín.
- 45** **Title of the work:** Femtosecond Laser Induced Structural Changes in Strontium Barium Niobate Glasses Doped with Er³⁺ Ions
Name of the conference: 4th Laser Ceramics Symposium
City of event: Shanghai, R. P. China,
Date of event: 10/11/2008
P. Haro-González, I. R. Martín, S. González-Pérez, L. L. Martín, F. Lahoz, D. Puerto, J. Solís.
- 46** **Name of the conference:** Coherent Control of Complex Quantum Systems



R&D management and participation in scientific committees

National and international forums and committees

Name of the forum: e-COST

Professional category: Included in COST Expert database

Organising entity: Union Europea

Type of entity: Union Europea

Start date: 2016

Other achievements

Stays in public or private R&D centres

- 1 **Entity:** Istituto Nazionale di Ottica
City of entity: Napoli, Italy
Start-End date: 12/10/2015 - 23/10/2015
Goals of the stay: Post-doctoral
- 2 **Entity:** University of Michigan
City of entity: Ann Arbor, United States of America
Start date: 09/04/2013
Goals of the stay: Doctorate
Type of entity: University
Duration: 1 month - 20 days
- 3 **Entity:** University of Michigan
City of entity: Ann Arbor, United States of America
Start date: 03/08/2012
Goals of the stay: Doctorate
Type of entity: University
Duration: 3 months - 2 days
- 4 **Entity:** Universitat de Barcelona
City of entity: Barcelona, Spain
Start date: 29/04/2011
Goals of the stay: Doctorate
Provable tasks: Estudio de micro-resonadores ópticos
Type of entity: University
Duration: 1 month - 2 days

Obtained grants and scholarships

- 1 **Name of the grant:** Technion Postdoctoral Fellowship
Aims: Post-doctoral
Awarding entity: Technion
Conferral date: 01/11/2013
End date: 01/11/2016
Entity where activity was carried out: Technion
Type of entity: University
Duration: 3 years



2 **Name of the grant:** Beca/contrato FPI del gobierno de Canarias.
Aims: Pre-doctoral
Awarding entity: Agencia Canaria de Investigación, Innovación y Sociedad de la Información, **Type of entity:** State agency
Conferral date: 01/05/2010 **Duration:** 4 years
End date: 01/05/2014
Entity where activity was carried out: Universidad de La Laguna
Faculty, institute or centre: Facultad de Física

3 **Name of the grant:** Beca CajaCanarias para la realización de tesis
Aims: Pre-doctoral
Awarding entity: Caja Canarias, **Type of entity:** Foundation
Conferral date: 01/02/2010 **Duration:** 3 months
End date: 01/05/2010
Entity where activity was carried out: Universidad de La Laguna
Faculty, institute or centre: Facultad de Física

4 **Name of the grant:** Contratos de doctores para el sistema español de ciencia, tecnología e investigación.
Awarding entity: Universitat politecnica de Valencia
Conferral date: 01/01/2018

5 **Name of the grant:** Juan de la Cierva Incorporación
Awarding entity: MINECO
Conferral date: 12/12/2017

Prizes, mentions and distinctions

Description: PhD Award with Special Distinction ("Premio extraordinario de doctorado")
Awarding entity: Universidad de La Laguna, **Type of entity:** University
Conferral date: 01/02/2014

Obtained accreditations/recognitions

Description: B2 English CertAcles
Accrediting entity: Universidad Politécnica de Valencia, **Type of entity:** University
Date of recognition: 10/01/2018