Curriculum Vitae – Luis sordo Vieira, Ph.D.

Personal Information

Luis Sordo Vieira
Postdoctoral Associate
The Jackson Laboratories for Genomic Medicine
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Education

Ph.D. Mathematics, University of Kentucky, *Aug. 2012 - May 2017*
Dissertation : On p-adic fields and p-groups.
Minor Areas : Algebraic Topology, Numerical Analysis
G.P.A. : 4.0/4.0

M.A. Mathematics, University of Kentucky, *Aug. 2012 - Dec. 2014*
Area : Number Theory
G.P.A. : 4.0/4.0

B.S. Mathematics, Wayne State University, *Aug. 2009 - May 2012*
G.P.A. : 3.96/4.0
Minor : Physics
Honors : Summa Cum Laude

Research Interests

Cancer Systems Biology — Mathematical Biology — Mathematical Modeling — Computational Biology — Bioinformatics — Mathematical Oncology

Employment

Postdoctoral Associate The Jackson Laboratory For Genomic Medicine *Jul. 2018 - Present*
Principal Investigator : Reinhard Laubenbacher, Ph.D.
- Main project : Mathematical modeling of breast cancer microenvironment to investigate the role of iron and the tumor microenvironment in cancer progression.
- Secondary project : Integrative omics analysis of acute myeloid leukemia data

Postdoctoral Fellow I Center for Quantitative Medicine, UConn Health *Jul. 2017 - Jun. 2018*
Principal Investigator : Paola Vera-Licona, Ph.D.
- Main project : Mathematical analysis of intracellular signaling networks, Cytoscape app development for analyzing signaling networks
- Multi-scale mathematical modeling of cancer

Journal Articles

Authorship order of entries with trailing A↓Z is guided by an ascending alphabetical order.

1. David B. Leep and **Luis Sordo Vieira**, *Diagonal equations over unramified extensions of* $\mathbb{Q}_p$. Bull. London Math. Soc. (2018) doi :10.1112/blms.12163. A↓Z
2. Ping Ngai Chung, Miguel A. Fernandez, Niralee Shah, **Luis Sordo Vieira**, *Are circles isoperimetric in the plane with density* e^r *?*, Rose-Hulman Undergraduate Mathematics Journal V. 16 (2015). A↓Z
3. Ping Ngai Chung, Miguel A. Fernandez, Yifei Li, Michael Mara, Frank Morgan, Isamar Rosa Plata, Niralee Shah, **Luis Sordo Vieira**, Elena Wikner, *Isoperimetric pentagonal tilings*, Notices Amer. Math. Soc. 59 (May, 2012), 632-640. A↓Z
4. Ping Ngai Chung, Miguel A. Fernandez, Niralee Shah, **Luis Sordo Vieira**, Elena Wikner, *Perimeter-minimizing pentagonal tilings*, Involve, V. 7., N. 4, (2014). A↓Z

Preprints

1. **Luis Sordo Vieira**, Paola Vera-Licona, *Computing Signal Transduction in signaling networks modeled as Boolean Networks, Petri Nets and hypergraphs*, bioRxiv 272344 ; doi : https ://doi.org/10.1101/272344

Non-Scientific Writing

1. **Luis Sordo Vieira**, *Reflections of a First-Year Postdoc*, Notices Amer.Math. Soc. V. 65, N. 8, (2018).

Workshops/Training

MiniCourse Basics of Mouse Genetics, The Jackson Laboratory *2018*

MiniCourse Basics of CRISPR/Cas9, The Jackson Laboratory *2018*

27th Annual Course on Experimental Models of Human Cancer, The Jackson Laboratory *2018*

The Jackson Laboratory, Genetics I *2018*

Mathematical Sciences Research Institute Character Theory Workshop *2016*

International Centre for Theoretical Physics/Centre International de Mathematiques *2015*

Pures et Appliquees Summer School on Arithmetic, Groups and Analysis

Mathematical Sciences Research Institute Algebraic Topology Workshop *2013*

Awards

2nd place in Speak4Science Competition *Fall 2018*
UConn Health-The Jackson Laboratory Postdoc Research Day

National Science Foundation Graduate Research Fellowship *May 2013*

Outstanding Poster Award, Latinxs in the Mathematical Sciences *Spring 2018*

Landahl Travel Grant, Society For Mathematical Biology *Spring 2018*

Reedy Award, University of Kentucky *Fall 2012*

Ron Mosier Memorial Award for Outstanding Undergraduate Presentation. *Spring 2011*
Mathematical Association of America, Michigan Sectional.

Outstanding Undergraduate Award *Spring 2012*
Wayne State University Mathematics Department.

Funding

National Science Foundation Graduate Research Fellowship DGE-1247392 *2013-2016*

Talks

The Jackson Laboratory

Computational Sciences Retreat *Fall 2018*
Investigating the Role of Iron in Breast Cancer via a Mathematical Model (poster).

UConn Health

Center for Quantitative Medicine *Fall 2017, Spring 2018*
Mathematics in Medicine Journal Club

Center for Cell Analysis and Modeling *Fall 2017*
Journal Club

External Talks

International Symposium on Biomathematics and Ecology Education and Research, *Fall 2018*
(Invited speaker) A computational method for investigating the connection between tumor-associated macrophages' polarization and iron metabolism.

Williams College Mathematics Class of 1960s Invited Speaker, *Fall 2018*
Mathematics for Breast Cancer Research : Investigating the Role of Iron.

Biology and Medicine Through Mathematics, Virginia Commonwealth University, *Spring 2018*
A Multi-Scale Agent-Based Tumor Model to investigate the role of iron in tumor progression : the Role of Iron and the Tumor Microenvironment (poster).

Biology and Medicine Through Mathematics, Virginia Commonwealth University, *Spring 2018*
A Multi-Scale Agent-Based Tumor Model to investigate the role of iron in tumor progression : the Role of Iron and the Tumor Microenvironment (poster).

Latinxs in the Mathematical Sciences, UCLA, *Spring 2018*
A Multi- Scale Agent-Based Model of Tumor Growth : the Role of Iron and the Tumor Microenvironment (poster).

Clemson Algebraic Geometry and Number Theory Seminar, *Spring 2016*
(Invited Speaker) On Artin's Conjecture.

FrankFest, Williams College, *Spring 2016*
Diagonal Forms over Local Fields.

Underrepresented Students in Algebra and Topology Symposium, *Spring 2015*
Diagonal Forms over Local Fields.

Latinxs in the Mathematical Sciences, UCLA, *Spring 2015*
Diagonal Forms over Local Fields (poster).

Joint Mathematics Meetings, *Spring 2012*
On the Isoperimetric Problem.

Service

UConn Health and Jackson Laboratories Postdoctoral Association Vice President	*2018 - Present*
UConn Health and Jackson Laboratories Postdoctoral Association interim secretary	*2017 - 2018*
UConn Health Postdoc Research Day Organizing Committee	*2018*
Underrepresented Students in Topology and Algebra Research Symposium Invited mentoring panel member	*2018*
Judge for UConn Health Medical Student Poster Presentation	*2018*
Judge for Joint Mathematics Meetings Undergraduate Poster Presentation	*2017*
Refereed Rose-Hulman Undergraduate Mathematics Journal	*2016*
Mentor and reading leader for incoming Graduate Students	*2016*
Presenter at the University of Kentucky Day for Women in Mathematics	*2015*
Organized the Mathematics Graduate Student Council Colloquium	*Spring 2013*

Teaching

University of Kentucky	Linear Algebra, Lecturer	*Spring 2017*
University of Kentucky	Linear Algebra, Lecturer	*Spring 2016*
University of Kentucky	Calculus for Life Sciences, Teaching Assistant	*Fall 2016*
University of Kentucky	Calculus I, Online Lecturer	*Summer 2016*
University of Kentucky	Calculus for Business, Teaching Assistant	*Spring 2014*
University of Kentucky	Calculus III, Lecturer	*Fall 2014*
University of Kentucky	Calculus II, Teaching Assistant	*Spring 2013*

Professional Organizations

American Association for Cancer Research	*2018-Present.*
Society for Advancement of Chicanos/Hispanics and Native Americans in Science	*2017 - Present*
Society for Mathematical Biology	*2017 - Present*
Society For Industrial and Applied Mathematics	*2016 - Present*
American Mathematical Society	*2012 - Present*