

Curriculum Vitae

1. Personal data:

- *Name:* Angel Zaldívar Corichi.
- *Date of Birth:* 18/12/1985
- *Nationality:* Mexican.
- *Address:* Centro Universitario de Ciencias Exactas e Ingenierías
Universidad de Guadalajara
Departamento de Matemáticas
Blvd. Marcelino García Barragán 1421, esq Calzada Olímpica, C.P.
44430, Guadalajara, Jalisco, México.
- *E-mail:* luis.zaldivar@academicos.udg.mx

2. Education:

- (i) *B. Math.* Universidad Nacional Autónoma de México. Facultad de Ciencias. 2004-2009. (June 24 2009)
- (ii) *M. Sc. (Mathematics).* Universidad Nacional Autónoma de México. Facultad de Ciencias. 2009-2011. (September 11 2011)
- (iii) *Doctor of Sciences (Mathematics).* 2011-2015. (September 3 2015).

3. Academic experience:

- (i) *Teaching Assistant.* Department of Mathematics, Universidad Nacional Autónoma de México. Facultad de Ciencias 2008-2013.
- (ii) *Lecturer.* Department of Mathematics, Facultad de Ciencias, Universidad Nacional Autónoma de México. 2013-2016.
- (iii) *Lecturer.* Department of Mathematics, CUCEI-Universidad de Guadalajara. Present.

4. Publications:

- (i) “Dimension and Decomposition in Modular Upper-Continuous Lattices”, joint work with J. Ríos Montes. (2016). *Algebra universalis*, 76(1), 33-51.
- (ii) “On Semiprime Goldie Modules”, joint work with J. Castro Pérez, M. Medina Bárcenas, J. Ríos Montes, *Communications in Algebra*, 44(11), 4749-4768.

- (iii) “On some operators and dimensions in meet-continuous modular lattices”, joint work with J. Ríos Montes y M. Medina Bárcenas. *Journal of Algebra and Its Applications*, 2017.
- (iv) “A generalization of quantales with applications to modules and rings”, joint work with M. Medina Bárcenas y L. Sandoval Miranda. *Journal of Pure and Applied Algebra Volume 220, Issue 5, May 2016* Paginas 1837-1857.
- (v) “On the structure of Goldie Modules”, joint work with J. Castro Pérez, M. Medina Bárcenas, J. Ríos Montes. *Communications in Algebra. 2018 volume 46, issue 7, pages 3112-3126*
- (vi) “Attaching topological spaces to a module (I): Sobriety and spatial frames for a module.” joint work with Lizbeth Sandoval, M. Medina Bárcenas, Lorena Morales. *Journal of Pure and Applied Algebra. Volume 222, Issue 5, May 2018, Pages 1026-10.*
- (vii) “Boyle’s Conjecture and perfect localizations”, joint work with J. Castro Pérez, M. Medina Bárcenas, J. Ríos Montes. *Communications in Algebra (2018): 1-7.*
- (viii) “A note in Gabriel dimension for idioms”,
<http://arxiv.org/pdf/1507.07078v1.pdf>
- (ix) “Boolean perspectives of idioms and the Boyle derivative, joint work with J. Castro Pérez, M. Medina Bárcenas, J. Ríos Montes”, *Aceptado en Applied categorical structures.*
- (x) “Attaching topological spaces to a module (II): Strongly harmonic modules and Gelfand modules”, joint work with Lizbeth Sandoval, M. Medina Bárcenas, Lorena Morales. *Communications in Algebra 2020.*
- (xi) “The frame of nuclei for Alexandroff spaces” joint work with Guram Bezhanishlibi, Patrick Morandi y Francisco Ávila. Order 2020.
- (xii) “When is the frame of nuclei spatial: A new Approach” joint work with Guram Bezhanishlibi, Patrick Morandi y Francisco Ávila. *Journal of Pure and Applied Algebra 2020.*

5. Work in progress:

- (i) “Filtration theory for idioms and Gabriel correspondences”, joint work with M. Medina Bárcenas.
- (ii) “Some point-free techniques in triangulated tensor categories”.
- (iii) “The idiom aspects of exact structures in module categories”.

- (iv) “Idioms, frames, nuclei and their uses: An invitation to the point-free thinking”.
- (v) “A note of spatiality on module categories”.
- (vi) “On localizations in categories of $\sigma[M]$ ”.
- (vii) “The frame of the cantor set and a theorem of Alexandroff-Hausdorff” joint work with Francisco Ávila, Urenda Julio.
- (viii) “Attaching topological spaces to a module (III): Sheaf representations of idioms and applications of modules” joint work with Lizbeth Sandoval, M. Medina Bárcenas.
- (xi) “De Morgan’s Laws on idioms and module categories” joint work with M. Medina. L. Sandoval-Miranda. submitted.

6. Awards

- (i) Candidate for National Inquirer (SNI) since January 1 of 2017 to December 31 of 2019.
- (ii) Full-Bright García Robles, Post-doctoral academic year 2017-2018, New Mexico State University.
- (iii) SNI-1 since January 2020 to December 31 2022.

7. Talks in Meetings:

- (i) *Algunos aspectos reticulares del conjunto de derivadas sobre el marco R -tors*, presented at the 45 Congreso Nacional de la Sociedad Matemática Mexicana, Querétaro 2012.
- (ii) *On certain operators in modular meet-continuous lattices*, presented at the 32nd Ohio State-Denison Mathematics Conference, May 2014.
- (iii) *Aspectos reticulares de anillos y sus categorías de módulos*, presented at 1st Encuentro de Estudiantes de Posgrado en Matemáticas UNAM, August 2014
- (iv) *Dimensiones, descomposiciones y algunos aspectos algebraicos de núcleos sobre idiomas*, presented at Jornadas de Álgebra, October 2015.
- (v) *El punto de vista del álgebra sin puntos*, presented at 1st Encuentro de Seminarios de Estudiantes de Posgrado de Matemáticas, November 2015 CIMAT, Guanajuato, México.
- (vi) *De cuantales al espacio de Zariski: Una invitación a las técnicas libres-de-puntos y sus aplicaciones a geometría y álgebra*. Presented at: Seminario de Geometría Algebraica, June 2016 CIMAT, Guanajuato, México.

- (vii) *The idiomatic content of module categories*, presentado en el 50 Congreso de la Sociedad Matemática Mexicana, Sesión Especial *Herramientas categóricas y reticulares para anillos y módulos*.
- (viii) *Spectral spaces, patch constructions and the boolean reflection problem* presentada en el seminario de álgebra del departamento de matemáticas de Northern Illinois University. Abril 2019.
- (ix) *The frame of nuclei of an Alexandroff space* presentada en el XIII coloquio latinoamericano de álgebra. Agosto 2019.
- (x) *Construcciones libres de puntos y el problema de la reflexión booleana* presentada en el 52 congreso de la sociedad matemática mexicana. Octubre 2019.

8. Scholarships:

- (i) *Graduate Scholarship Conacyt*, 2009-2011. Degree obtained: M. Sc.
- (ii) *Graduate Scholarship Conacyt*, 2011-2015. Doctorate Scholarship.

9. Graduated students:

- (i) Luis Eduardo García Hernández.
 - a) Bachelor thesis with honors “Tópicos en teoría de locales”,
 - b) Defense date December 2014.
 - c) <http://132.248.9.195/ptd2014/noviembre/308056567/Index.html>.
- (ii) Joseph Christian Sierra Guitiérrez.
 - 1) Bachelor thesis with honors: “Mónadas inducidas por la equivalencia de Stone”.
 - 2) Defense date June 15.
 - 3) Liga <http://132.248.9.195/ptd2018/mayo/0774664/Index.html>
- (iii) Ana Belén Ávilez García
 - 1) Bachelor thesis with honors: “Análisis De Cantor-Bendixson para un marco y el problema de la reflexión Booleana”.
 - 2) Defense date June 15.
 - 3) Liga <http://132.248.9.195/ptd2018/mayo/0774564/Index.html>
- (iv) Aldebarán Alaníz Rochín.
 - 1) Tesis de Licenciatura: “Algunos aspectos cohomológicos de la teoría de Galois”
 - 2) Sustentada el 3 de Junio del 2019.

. In process:

d) Mariana Garduño

- 1) Bachelor thesis: “ \mathcal{G} -topologías y el marco de núcleos deferentes”

10. Other activities

- (i) Member of the organizer committee of *Aquelarre Matemático*, 2010-2017.
 - A Series of talk given by postgraduate students to undergraduate students covering research topics in Mathematics and Physics.
- (ii) Member of the editorial board *Subíndice*.
 - Design and mathematics.

11. Contact details: Letters of recommendation.

- (1) Dr. José Ríos Montes
 - Instituto de Matemáticas
Universidad Nacional Autónoma de México
Ciudad Universitaria, UNAM,
México, D. F. 04510, México.
<http://www.matem.unam.mx/>
jrios@matem.unam.mx
- (2) Dr. Francisco Marmolejo Riavas
 - Instituto de Matemáticas
Universidad Nacional Autónoma de México
Ciudad Universitaria, UNAM,
México, D. F. 04510, México.
<http://www.matem.unam.mx/>
quico@matem.unam.mx
- (3) Dr. Sergio López Permouth
 - Professor of Mathematics, Director del Center of Ring Theory and its Applications (CRA) y Editor ejecutivo del Journal of Algebra and its Applications (JAA) Ohio University Athens
lopez@ohio.edu
- (4) Guram Bezhanishvili

- Department of Mathematical Sciences

New Mexico State University

Las Cruces NM

gbezhani@math.nmsu.edu

(5) Dr. Jorge Picado.

- Departamento de Matemática

Universidade de Coimbra

picado@mat.uc.pt