

Dr. rer. nat. Edith M. Vargas García



Resumé

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Studies

- 2014–2016 **Postdoctoral research**, *University of Leeds*, UK.
Major in Logic, minors in Model theory and Algebra.
- 2007–2011 **Ph. D. (Doctor Rerum Naturalium)**, *Dresden University of Technology*, Dresden, Germany, *with honor Cum Laude*.
Major in Algebra, minors in Order theory and scientific computing.
- 2001–2003 **M. Sc. in Mathematics**, *Universidad Nacional Autónoma de México (U.N.A.M)*, D. F., México.
Major in Numerical Analysis, minors in Algebra and scientific computing.

PhD thesis

- title *Clausal Relations and C-clones*.
supervisor Prof. Dr. R. Pöschel.
area Universal Algebra, Clones.

Professional experience

- 2010–today **Publications and contributions to conferences**, *see below*.
- 2017–today **Associate professor “C”**, *Instituto Tecnológico de México (I.T.A.M.)*, D. F., México.
Lecturing: Algebra Superior I, Algebra Superior II, Introduction to Mathematics and Linear Programming.
- 2014 **Tutor**, *University of Leeds*, UK.
Teaching: Mathematics (number systems).
- 2011– 2017 **Associate professor**, *Universidad Autónoma de la Ciudad de México (U.A.C.M.)*, D. F., México.
Lecturing: Linear algebra, Differential calculus and Ordinary Differential Equations.
- 2012–2013 **Teacher**, *Colegio Alemán Alexander von Humboldt*, D. F., México.
Teaching: Mathematics for Secondary and High-school in German.

- 2010–2011 **Tutor and graduate research assistant**, *Dresden University of Technology*, Dresden, Germany.
Tutor for mathematics I, II and III of computer science.
- 2003–2006 **Lecturer**, *U.N.A.M. (FES-ACATLAN)*, D. F., México.
Lecturing: Linear algebra, Operations Research, Linear programming and Numerical methods.

Languages

- Spanish **native**.
- English **scientific and conversational. Level 8 (last level) in Cele**.
- German **TestDaF**.
- Reading-Comprehension TDN 4
 - Listening-Comprehension TDN 3
 - Writing TDN 3
 - Conversation TDN 3

Technical skills

- OS' Windows, Linux (Ubuntu)
- Software (Libre/MS) Office, \LaTeX
- Languages Fortran 95/2003, Python.

List of publications

In preparation

- [1] Mike Behrisch and Edith Vargas-Garcia and Dmitriy N.Zhuk. The number of clones determined by disjunctions of unary relations. (*in revision at Theory of Computing Systems*), 2017.
- [2] John Truss and Edith Vargas-Garcia. Reconstructing the topology on monoids and polymorphism clones of reducts of the rationals. *ArXiv: 1606.09531*, (*in revision at Banff proceedings*), 2016.

Submitted

- [3] Mike Behrisch and Edith Vargas-García. Unique inclusions of maximal C-clones in maximal clones. (*Accepted at Algebra universalis*), 2015-2017.

Published

- [4] Mike Behrisch and John Truss and Edith Vargas-García. Reconstructing the topology on monoids and polymorphism clones of the rationals. *Studia Logica* (2016). doi:10.1007/s11225-016-9682-z, 2016.
- [5] Edith Mireya Vargas. Maximal and minimal C-monoids. *DEMONSTRATIO MATHEMATICA*, XLIV(3):615–627, 2011.
- [6] Mike Behrisch and Edith Mireya Vargas. C-clones and C-automorphism-groups. *CON-*

TRIBUTIONS TO GENERAL ALGEBRA 19, Proceedings of the Olomouc Conference 2010 (AAA79 + CYA25):1–12, Verlag Johannes Heyn, Klagenfurt 2010.

- [7] Edith Mireya Vargas. Clausal relations and C-clones. *Discussiones Mathematicae – General Algebra and Applications*, 30(2):147–171, 2010.

Recent contributions to conferences

- 1/2018 Talk: “A GENTLE INTRODUCTION TO CLONES AND THEIR APPLICATIONS”, at the *Coloquio de Categorías, Álgebra y Temas Afines (CINVCAT)*, in CDMX, Mexico
- 10/2017 Talk: “A GENTLE INTRODUCTION TO CLONES AND THEIR APPLICATIONS”, at the *50. Congreso Nacional de la Sociedad Matemática Mexicana*, in CDMX, Mexico
- 09/2017 Talk: “COMPLEJIDAD COMPUTACIONAL Y LA TEORIA DE CLONES ATRAS DE ELLA.”, in the *Tardeada Matemática (ITAM)*, in CDMX, Mexico
- 06/2017 Talk: “RECONSTRUCTING THE TOPOLOGY ON MONOIDS AND POLYMORPHISM CLONES OF REDUCTS OF THE RATIONALS”, at the *The 94th Workshop on General Algebra, in conjunction with the 5th Novi Sad Algebraic Conference*, in Novi Sad, Serbia
- 01/2016 Talk: “RECONSTRUCTING THE TOPOLOGY ON MONOIDS AND POLYMORPHISM CLONES OF THE RATIONALS”, at the *The British Postgraduate Model Theory Conference (BPGMTC) 2016*, in Manchester, U.K.
- 12/2015 Talk: “AN INTRODUCTION TO THE RECONSTRUCTION OF THE TOPOLOGY ON MONOID OF THE RATIONALS”, at the *Lancashire-Yorkshire Model Theory Seminar (LYMoTS)*, in Preston, U.K.
- 07/2015 Talk: “INTRODUCTION TO RECONSTRUCTING THE TOPOLOGICAL MONOID OF ENDOMORPHISMS OF THE RATIONALS”, at the *London Mathematical Society EPSRC Durham Symposium Permutation groups and transformation semigroups*, in Durham, U.K.
- 02/2015 Talk: “ON THE AUTOMATIC HOMEOMORPHICITY OF $Pol(Q, \leq)$ ”, at the *AAA89 (89. Workshop on General Algebra)*, in Dresden, Germany.
- 10/2014 Talk: “CLONES DETERMINED BY CLAUSAL RELATIONS”, at the *Semigroup seminar*, in York, U.K.
- 07/2014 Talk: “ON THE CARDINALITY OF THE C-CLONE LATTICE”, at the *Algebras and Clones Fest*, in Prague, Czech Republic.
- 01/2014 Talk: “AN INTRODUCTION TO CLONES, CLAUSAL RELATIONS AND THEIR CONNECTION TO CSPs”, at the *British Postgraduate Model Theory Conference*, in Leeds, U.K.