

# Martin Sztyld

Welcome to my home page!

## Contact Information

Oficina E-25 - Departamento de Matemática ( <http://cms.dm.uba.ar> )

Facultad de Ciencias Exactas y Naturales ( <http://exactas.uba.ar> ),  
Universidad de Buenos Aires ( <http://www.uba.ar> )

(C1428EHA) Pabellón I - Ciudad Universitaria - Buenos Aires - Argentina

Tel: (5411) 4576 3390/6 - E-mail: [mszyld@dm.uba.ar](mailto:mszyld@dm.uba.ar) (<mailto:mszyld@dm.uba.ar>)

I'm currently a JTP (Lecturer), and also a Postdoctoral fellow of CONICET ( <http://www.conicet.gov.ar> ).



## Research Interests

- Category theory. In particular higher category theory.
- Representation theory. In particular Galois and Tannaka theories.
- Model 2-categories and its applications.

## Publications

- 2017, A general limit lifting theorem for 2-dimensional monad theory, to appear in Journal of Pure and Applied Algebra. arXiv:[1702.03303](https://arxiv.org/abs/1702.03303) ( <http://arxiv.org/abs/1702.03303> ).
- 2016, On the notion of flat 2-functors (joint with Descotte M.E. and Dubuc E. J.) arXiv: [1610.09429](https://arxiv.org/abs/1610.09429) ( <http://arxiv.org/abs/1610.09429> ).
- 2016, A construction of certain weak colimits and an exactness property of the 2-category of categories (joint with Descotte M.E. and Dubuc E. J.). arXiv:[1610.02453](https://arxiv.org/abs/1610.02453) ( <http://arxiv.org/abs/1610.02453> ).
- 2016, Tannaka theory over sup-lattices and descent for topoi (joint with Dubuc E. J.), Theory and Applications of Categories volume 31, p. 852-906. Freely available at TAC website ( <http://www.tac.mta.ca/tac/> ).
- 2013, A Tannakian Context For Galois Theory (joint with Dubuc E. J.), Advances In Mathematics volume 234, p. 528-549. arXiv:[1110.6411](https://arxiv.org/abs/1110.6411) ( <http://arxiv.org/abs/1110.6411> ).

## Talks

Below is some information on most of the talks I gave. I agree with Dr Z's opinion ( <http://www.math.rutgers.edu/~zeilberg/Opinion60.html> ) on blackboard talks, so I often don't use slides, and when I do, they don't hold that much information. But feel free to contact me ( <mailto:mszyld@dm.uba.ar> ) for more info on any of the talks below!

- 2017: I gave a talk presenting my limit lifting paper at a plenary session of the CT2017 - International Category Theory Conference ( <http://www.mat.uc.pt/~ct2017/> ), at UBC ( <http://www.ubc.ca> ) in Vancouver, Canada (abstract ( [szyld\\_lifting\\_abstract\\_CT17.pdf](#) ), slides ( [szyld\\_lifting\\_slides\\_CT17.pdf](#) )).
- 2017: I was invited to give a talk presenting my limit lifting paper at XXVI ERAG ( <http://www.mate.unlp.edu.ar/erag/> ) at ICAS ( <http://www.icas.unsam.edu.ar/index.html> ) in Buenos

Aires, Argentina ([spanish abstract \(szyld\\_lifting\\_abstract\\_ERAG.pdf\)](#)), [spanish slides \(szyld\\_lifting\\_slides\\_ERAG.pdf\)](#)).

- 2017: I gave a talk presenting my limit lifting paper at the [5th Workshop on Categorical Methods in Non-Abelian Algebra \(http://www.mat.uc.pt/~mmc/mcana/MCANAFifthworkshop.html\)](#), at [UCL \(http://uclouvain.be/index.html\)](#) in Louvain-la-Neuve, Belgium ([abstract \(szyld\\_liftingtheorem\\_abstract.pdf\)](#)), [slides \(szyld\\_lifting\\_UCL.pdf\)](#)).
- 2017: I gave a talk at the [Catégories supérieures, polygraphes et homotopie \(http://www.irif.fr/gt/cat/index\)](#) seminar at [Paris Diderot \(http://www.univ-paris-diderot.fr/\)](#), France, on my limit lifting paper ([abstract \(szyld\\_liftingtheorem\\_abstract.pdf\)](#)).
- 2016: I gave a talk at [OU \(http://www.ou.edu\)](#) Algebra and Representation Theory Seminar, in Oklahoma, USA, "On flat functors" ([abstract \(OU\\_abstract.pdf\)](#)).
- 2016: I gave a talk at [UCO \(http://www.uco.edu/\)](#) Math club in Oklahoma, USA, "The universal properties that lie behind the objects" ([abstract \(UCO\\_abstract.pdf\)](#)).
- 2014: I gave a short course on "Classifying Topoi and Galois Theory" ([spanish abstract \(UNEMAT\\_Cursillo\\_Szyld.pdf\)](#)) and a conference "Relations in a topos: a new example of a Tannakian category" ([spanish abstract \(UNEMAT\\_Conferencia\\_Szyld.pdf\)](#)) at [UNEMAT 2014 \(http://ciencias.bogota.unal.edu.co/unemat/encuentros-antiores/2014/\)](#) in Bogota, Colombia.
- 2012: I gave a talk at [IV Latin American Meeting \(http://www.famaf.unc.edu.ar/~ciem/clam2012/\)](#) at [UNC \(http://www.unc.edu.ar/\)](#) in Cordoba, Argentina, "Tannakian techniques in topos representation theory" ([abstract \(abstract\\_clam\\_szyld.pdf\)](#)).
- 2011: I gave a conference at XXI Encuentro Rioplatense de Algebra y Geometria at [CMAT \(http://www.cmat.edu.uy/\)](#) in Montevideo, Uruguay, "A Tannakian context for Galois" ([slides \(ERAG\\_2011.pdf\)](#)).
- 2010: I gave the talk "A Tannakian approach to Grothendieck Galois theory" at [elENA V \(http://www.famaf.unc.edu.ar/~ciem/elenav/index.html\)](#) and at the annual [UMA reunion \(http://www.exa.unicen.edu.ar/uma2010/uma.php\)](#) ([slides \(UMA\\_2010.pdf\)](#)) in Argentina.

## Teaching

Always check the links below for updated information on each course.

- 2017, second semester: [Matemática 2 \(Complementos de Matemática 3 para Física\) \(http://cms.dm.uba.ar/academico/materias/2docuat2017/matematica2/\)](#)
- 2016, second semester: [Matemática 2 \(Complementos de Matemática 3 para Física\) \(http://cms.dm.uba.ar/academico/materias/2docuat2016/matematica2/\)](#)
- 2016, first semester: [Temas básicos de Categorías \(mailto:mszyld@dm.uba.ar\)](#)
- 2016, summer course: [Análisis Matemático I \(Biología\) \(http://cms.dm.uba.ar/academico/materias/verano2016/analisis\\_matematico\\_I\\_B/\)](#)
- [Previous courses \(previous\\_courses\)](#)