

Adrián González Casanova

CONTACT INFORMATION	Genter strasse 11 13353 Berlin http://page.math.tu-berlin.de/~ agonzale/	(+49)15777538028 gonzalez@wias-berlin.de
PERSONAL INFORMATION	Born in Cuernavaca, Morelos, Mexico on the 26th of February 1986 Nationality: Mexican and Spanish.	
CURRENT POSITION	Postdoc at Weierstrass-Institut für Angewandte Analysis und Stochastik (Berlin, Germany). In the group of Professor Dr. Wolfgang König. [Starting date: July 2015]	
RESEARCH INTERESTS	Probability Theory, Stochastic Processes, Population Genetics, Mathematical Modeling, Theoretical Biology, Experimental Evolution.	
EDUCATION	TU Berlin (BMS) , Berlin, Germany Ph.D., Mathematics, <i>Start date:</i> 01-10-2012 <i>Defense date:</i> 9-10-2015 <ul style="list-style-type: none">• Thesis Topic: <i>The effect of latency in population genetics</i>• Advisors: Professor Dr. Jochen Blath and Professor Dr. Noemi Kurt• Honors: summa cum laude BMS Phase 1, Mathematics, From Oct 2010 to Jan 2012, <ul style="list-style-type: none">• Qualifying Exam in <i>Probability II, III and Algebraic Topology</i> Grade 1.3 (Sehr Gut)• Overall grade 1.3 (Sehr Gut) National University of Mexico (UNAM) , Mexico City, Mexico. B.Sc., Mathematics, From Ago 2005 to Dec 2009 <ul style="list-style-type: none">• Thesis Topic: <i>Probability and Topology</i>• Advisor: Professor Dr. Maria Emilia Caballero• Grade 9.4 (out of 10) Centro Universitario Anglomexicano (CUAM) , Cuernavaca, Morelos, Mexico. Highschool <ul style="list-style-type: none">• From Ago 2001 to Jul 2004• Grade 8.5 (out of 10)	
ACADEMIC VISITS	Research stays <ul style="list-style-type: none">• Visiting: Prof. Dr. Anton Wakolbinger, Goethe University Frankfurt am Main (2013), Working on the project: Modeling the Lenski experiment• Visiting: Prof. Dr. Julien Berestycki, University of Oxford (2015), Working on the projects: “Shape of adaptation in a simple \mathcal{R}^2 model” (With Dr. Charline Smadi and Atul Sehkar) and “the duality between the Kingman n-Coalescent and the Lambda Fleming Viot process” (with Prof. Dr. Dario Spano).• Visiting: Prof. Dr. Juan Carlos Pardo and Prof. Dr. Jose Luis Perez, CIMAT Guanajuato, Mexico (2016), Working on the projects: Branching Processes with interaction.	

- Visiting: Prof. Dr. Maria Emilia Caballero,
UNAM, Mexico City (2016),
Working on the projects: α stable coalescent.

Research short visits

- Visiting: Prof. Dr. Julien Berestycki (Now in Oxford)
University of Paris VI, Pierre et Marie Curie,
Working on the project: Mixing time approach to prove convergence to
the Kingman coalescent
- Visiting: Prof. Dr. Dario Spanò,
Warwick University,
Working on the project: The ancestral process of the seed-bank model

International Schools

- Summer in IMPA (2010),
IMPA, Rio de Janeiro, Brazil
- Summer school in Probability (2012)
UBC Vancouver, Canada.
- Ecole de Printemps en Probabilités et Biologie évolutionnaire de l' ANR MANEGE
(2013)
Aussois, France.
- School in Probability (2013)
UNAM, Mexico DF , Mexico.
- Probabilistic Structures in Evolution summer school (2014)
Heinrich-Fabri-Institute Blaubeuren, Germany.

REFEREED JOURNAL PUBLICATIONS

1. The ancestral process of long-range seed-bank models. J. Blath, **A. González Casanova**, N. Kurt and D. Spanò. (Journal of Applied Probability, 2013)
2. Strong seed-bank effects in bacterial evolution. **A. González Casanova**, E. Aguirre, G. Espín, L. Servin-González, N. Kurt, D. Spanò, J. Blath and G. Sóberon-Chavez. (J. Theor. Biol. 2014)
3. Genealogy of a Wright-Fisher model with strong seed-bank component , J. Blath, B. Eldon, **A. González Casanova** and N. Kurt. (Birkhaeuser Progress in Probability 2014)
4. The seed-bank coalescent. J. Blath, **A. González Casanova**, N. Kurt and M. Wilke-Berenguer. (Annals of Applied Probability 2015)
5. Genetic variability under the seed-bank coalescent. J. Blath, B. Eldon, **A. González Casanova**, N. Kurt and M. Wilke-Berenguer. (Genetics 2015)
6. An individual based Model for the Lenski experiment, and the deceleration of the relative fitness. **A. González Casanova**, N. Kurt, A. Wakolbinger and L. Yuan. (Stochastic Process and Applications 2016)

SUBMITTED PAPERS

1. Modeling selection via multiple parents **A. González Casanova**, and D. Spanò.
arxiv.1612.04947

PAPERS IN PREPARATION

1. The seed bank diffusion: properties, scaling limits and relation to the two-island model. J. Blath, **A. González Casanova**, and E. Buzzoni.
2. Branching processes with interactions. **A. González Casanova**, J. C. Pardo and J. L. Perez.

- AWARDS
- Ito Prize 2017 for the paper *An individual based Model for the Lenski experiment, and the deceleration of the relative fitness.*
- SCHOLARSHIPS
- DAAD-CONACyT Scholarship 2010-2012
 - Berlin Mathematical School Phase 1 Scholarship 2010-2012
 - RTG 1845 Stochastic Processes and Applications to Biology, Physics and Finances Scholarship 2012-2015
 - DAAD-CONACyT complementary Scholarship 2012-2015
- MINI-COUSES PRESENTED
- 2016 The seed bank model, VIII School on Probability and Stochastic Processes, CIMAT, Guanajuato, Mexico.
- SELECTED PRESENTATIONS
- 2017 Fixation in a Ξ coalescent model with selection, Seminar of Probability- UNAM, Mexico.
 - 2017 Fixation in a Ξ coalescent model with selection, Seminar of Probability- University of Oxford, England.
 - 2016 The seedbank coalescent, World Congress in Probability and Statistics, Fields Institut, Toronto, Canada.
 - 2016 Fixation in a Ξ coalescent model with selection, Midlands Probability Theory Seminars - University of Warwick, England.
 - 2016 Fixation in a Ξ coalescent model with selection, Probabilistic Models in Evolutionary Biology, University of Göttingen, Germany
 - 2016 Modeling the Lenski experiment, conference on Mathematical and Computational Evolutionary Biology, Montpellier, France.
 - 2015 Defense of my PhD thesis. TU Berlin.
 - 2015 An individual based model for the Lenski experiment, and the deceleration of the relative fitness. Probability and Biological Evolution, Frankfurt, colloquium in honor of Anton Wakolwinger.
 - 2015 An individual based model for the Lenski experiment, and the deceleration of the relative fitness. Probability and Biological Evolution, CIRM, Marseille Luminy, France.
 - 2014 The seed-bank coalescent, II Reunión de Matemáticos Mexicanos en el Mundo. Guanajuato, Mexico.
 - 2014 The seed-bank coalescent, Duality of Markov processes and applications to spatial population models. Berlin, Germany.
 - 2014 A weak mutation strong selection model for experimental evolution, RTG1845 colloquium, Berlin, Germany.
 - 2014 A weak mutation strong selection model for experimental evolution, Genealogies of populations under competition, Essen, Germany.
 - 2014 Stationarity, mixing times and convergence to the Kingman coalescent, 11th German Probability and Statistics Days, Ulm, Germany
 - 2013 A weak mutation strong selection model for experimental evolution. XI Symposium of Probability and Stochastic Processes, Guanajuato, Mexico.
 - 2013 A weak mutation strong selection model for experimental evolution. Mind the gap 4, 1st and 2nd of November, Vienna, Austria.
 - 2013 Mixing-times and convergence to the Kingman coalescent. ETH-RTG1845 Summer School, 2nd to 6th September, Zurich, Switzerland.
 - 2013 The seed-bank model. Ecole de Printemps en Probabilités et Biologie évolutionnaire de l' ANR MANEGE, Aussois, France.
 - 2012 The seed-bank model. Seminar University of Alexandria, Egypt.
 - 2012 DAAD Science Slam in Cairo, Egypt.
 - 2012 The seed-bank model. Seminar RTG 1845, WIAS, Berlin, Germany.
 - 2012 The seed-bank model. PIMS Summer School in Probability, Vancouver, Canada.

- 2012 What is the Brownian Motion?, Berlin Mathematical School, Berlin Germany
- 2011 The seed-bank model, CIMAT, Universidad de Guanajuato, Mexico.
- 2011 The seed-bank model, Facultad de Ciencias, UNAM, Mexico
- 2011 The seed-bank model , Instituto de Matemáticas, UNAM, Mexico.
- 2011 The seed-bank model, TU Berlin.
- 2009 Topics in weak convergence of stochastic processes, UNAM, Mexico.
- 2009 Defense of my Bachelor thesis, UNAM, Mexico.

TEACHING
EXPERIENCE

- 2012 TU Berlin, Berlin Germany. Tutor of Probability 3 with Professor Dr. Noemi Kurt
- 2009 Caley High School, Cuernavaca Mexico. Teacher of Probability and Calculus.
- 2008 Faculty of Science University of Mexico, Mexico City, Mexico Adjunct teacher in Stochastic processes 1 with Professor Geronimo Uribe.
- 2008 Faculty of Science University of Mexico, Mexico City, Mexico Adjunct teacher in Probability 2 with Professor Nelson Muriel Torrero.
- 2007 Faculty of Science University of Mexico, Mexico City, Mexico Adjunct teacher in Probability 1 with Professor Nelson Muriel Torrero.

SERVICE

Student representative

- 2013-2014 RTG1845, Berlin, Germany.
- 2011-2012 Berlin Mathematical School, Berlin, Germany.

Postdoc representative

- 2017- Berlin Mathematical School, Berlin, Germany.

Organized Conferences

- 2013 First meeting of Latin American students in Probability and Statistics in Europe.
- 2012 First BMS student conference

REFERENCES

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Maria Emilia Caballero

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