

Niki Myrto Mavraki

CONTACT INFORMATION	Department of Mathematics University of Basel Spiegelgasse 1 Basel, 4051, Switzerland	<i>email: nikimyrto.mavraki@unibas.ch</i>
RESEARCH INTERESTS	Number Theory, Arithmetic Dynamics, Arithmetic Geometry	
EMPLOYMENT	University of Basel , Basel, Switzerland Postdoctoral researcher, 2019 - 2020 Mentor: Pierre Le Boudec Northwestern University , Evanston, USA Boas Assistant Professor of Mathematics, 2018 - 2019 Mentor: Laura DeMarco	
EDUCATION	University of British Columbia , Vancouver, Canada Ph.D. in Mathematics, May 2014 - May 2018 Advisor: Dragos Ghioca Thesis: Unlikely intersections and equidistribution with a dynamical perspective M.Sc. in Mathematics, September 2012 - May 2014 Advisors: Dragos Ghioca , Stephanie van Willigenburg Thesis: Variation of the canonical height in a family of rational maps National and Kapodistrian University of Athens , Athens, Greece B.Sc. in Mathematics, 2008 - 2012	
PREPRINTS AND PUBLICATIONS	<ol style="list-style-type: none">1) Variation of the canonical height in a family of rational maps with Dragos Ghioca <i>New York Journal of Mathematics</i>, 2013, vol. 19, 873-9072) Impossible intersections in a Weierstrass family of elliptic curves, <i>Journal of Number Theory</i>, 2016, vol. 169, 21-403) Algebraic approximations to linear combinations of powers: an extension of results by Mahler and Corvaja-Zannier with Avinash Kulkarni and Khoa D. Nguyen <i>Transactions of the AMS</i>, 2019, vol. 371, 3787-38044) Variation of canonical height and equidistribution with Laura DeMarco, <i>To appear, American Journal of Mathematics</i>5) Quasi-adelic measures and equidistribution on \mathbb{P}^1 with Hexi Ye, <i>submitted for publication</i>	

- 6) Arithmetic equidistribution for real adelic metrized divisors with applications to linear relations in families of elliptic curves with *Laura DeMarco*,
in preparation
- 7) A variation of heights for totally Fatou dynamical pairs with *Laura DeMarco*,
in preparation
- 8) A dynamical Shafarevich theorem in \mathbb{P}^N with *Jamie Juul, Holly Krieger and Nicole Looper*,
in preparation

HONOURS,
AWARDS AND
FELLOWSHIPS

- **Governor General's Gold Medal** for the graduate student who has achieved most outstanding academic record as a Master's student completing a thesis
University of British Columbia, Vancouver, Canada, 2015.
- **Faculty of Science Graduate Prize**
University of British Columbia, Vancouver, Canada, 2015.
- **Four Year Doctoral Fellowship**
University of British Columbia, Vancouver, Canada, 2014 - 2018.
- **Faculty of Science Graduate Fellowship**
University of British Columbia, Vancouver, Canada, 2012 - 2014.
- **Onassis Foundation Fellowship**
Onassis Foundation, Athens, Greece, 2012 - 2014.
- Amongst top 3 students in the Mathematics department
National and Kapodistrian University of Athens, Athens, Greece, 2008- 2012.

INVITED TALKS

- **\mathbb{N}^3 -days XII**
DTU Copenhagen, May 2020.
- ***University of Michigan Complex Analysis, Dynamics and Geometry Seminar***
Michigan, USA, February 2020.
- **9th swiss-french workshop in Algebraic Geometry**
Charmey, Switzerland, January 2020.
Title: Simultaneously preperiodic points in families of rational maps and a variation of heights.
- **Complex Dynamics in the Southern Hemisphere**
Santiago, Chile, January 2020.
Title: Variation of heights, arithmetic equidistribution and preperiodic points in families of rational maps.
- ***Scuola Normale Superiore Number Theory Seminar***
Pisa, Italy, November 2019.
Title: Arithmetic equidistribution and small points in families of elliptic curves.
- **2019 Midwest dynamical systems early career conference**

- Ohio State University, USA, May 2019.
 Title: Arithmetic equidistribution and simultaneously preperiodic points in families of rational maps.
- **2019 AMS Joint Sectional Meeting**
 Hawaii, USA, March 2019.
 Title: Arithmetic equidistribution, dynamics and elliptic curves.
 - ***Northwestern University Dynamics Seminar***
 Northwestern University, Evanston, USA, November 2018.
 Title: Equidistribution and preperiodic points for families of rational maps.
 - ***Conference on Diophantine Approximation and Transcendence***
 CIRM, France, September 2018.
 Title: Arithmetic equidistribution and elliptic curves.
 - ***University of Basel Number Theory Seminar***
 Basel, Switzerland, June 2018.
 Title: A variation of heights and small points in families of elliptic curves.
 - ***2018 Joint Mathematics Meetings***
 San Diego, USA, January 2018.
 Title: Equidistribution and preperiodic points for families of rational maps.
 - ***2017 Canadian Mathematical Society (CMS) Winter Meeting***
 Waterloo, Canada, December 2017.
 Title: Dynamics and small points in families of elliptic curves.
 - ***University of Washington Number Theory Seminar***
 Seattle, USA, October 2017.
 Title: Dynamics and small points in families of elliptic curves.
 - ***Mathematical Congress of the Americas 2017***
 Centre Mont-Royal and McGill University, Canada, July 2017.
 Title: Quasi-adelic measures, equidistribution and preperiodic points for families of rational maps.
 - ***Northwestern University Dynamics Seminar***
 Northwestern University, Evanston, USA, January 2017.
 Title: Dynamics and small points in families of elliptic curves.
 - ***Workshop on Interactions between Model Theory and Arithmetic Dynamics***
 The Fields Institute, Canada, July 2016.
 Title: Impossible intersections in a Weierstrass family of elliptic curves.
 - ***2016 CMS Summer meeting***
 University of Alberta, Canada, June 2016.
 Title: Impossible intersections in a Weierstrass family of elliptic curves.
 - ***Pacific Northwest Number Theory Conference***
 Oregon State University, USA, May 2016.
 Title: Impossible intersections in a Weierstrass family of elliptic curves.
 - ***UBC Number Theory Seminar***
 University of British Columbia, Vancouver, Canada, January 2016.
 Title: Impossible intersections in a Weierstrass family of elliptic curves.
 - ***RTG Workshop on Arithmetic Dynamics***

	<p>University of Michigan, USA, December 2015. Title: Impossible intersections in a Weierstrass family of elliptic curves.</p> <ul style="list-style-type: none"> • 11th PIMS Young Researchers Conference University of British Columbia, Vancouver, Canada, June 2014. Title: Unlikely Intersections and a Variation of Heights. • Graduate Student Seminar University of British Columbia, Vancouver, Canada, March 2014. Title: Arithmetic Dynamics. • UBC Number Theory Seminar University of British Columbia, Vancouver, Canada, November 2013. Title: Variation of the canonical height for a family of rational maps.
ACADEMIC VISITS	<ul style="list-style-type: none"> • Thematic Program on Unlikely Intersections, Heights, and Efficient Congruencing <i>The Fields Institute, Canada, 8-28 February 2017.</i>
TEACHING EXPERIENCE	<p>University of Basel, Basel, Switzerland</p> <ul style="list-style-type: none"> • Exercise class: <i>Complex analysis</i>, Fall Semester, 2019 <p>Northwestern University, Evanston, USA</p> <ul style="list-style-type: none"> • Instructor for <i>Math 230: Differential Calculus of Multivariable Functions</i>, Winter Quarter, 2019 • Instructor for <i>Math 224: Integral Calculus in One-Variable</i>, Fall Quarter, 2018 <p>University of British Columbia, Vancouver, Canada</p> <ul style="list-style-type: none"> • Instructor for <i>Math 110: Differential Calculus</i>, Winter Term 1, 2016 Math 110 course webpage. • Instructor for <i>Math 102: Differential Calculus with Applications to Life Sciences</i>, Winter Term 1, 2014 Math 102 course webpage. • Teaching Assistant: Tutor in Math Learning Center (2012-2014) as well as grader for various undergraduate courses (2012-2018).
WORKSHOP ORGANIZING	<p><i>Workshop on Diophantine Geometry and Arithmetic Dynamics</i> (coorganizing with Lars Kühne) <i>University of Basel, Switzerland, April 2020.</i></p>
CONFERENCES ATTENDED/ UPCOMING	<ul style="list-style-type: none"> • Moduli spaces for algebraic dynamical systems <i>American Institute of Mathematics, San Jose, California, USA, July 2020.</i> • Workshop - Diophantische Approximationen <i>Oberwolfach, Germany, April 2020.</i> • 9th swiss-french workshop in Algebraic Geometry <i>Charmey, Switzerland, February 2020.</i> • Complex Dynamics in the Southern Hemisphere

- Santiago, Chile, January 2020.*
- **Number Theory Days**
ETH, Zurich, Switzerland, October 2019.
- **Women in Numbers Europe 3**
Rennes, France, August 2019.
- **Simons Foundation Symposium in Algebraic, Complex and Arithmetic Dynamics**
Elmau, Germany, May 2019
- **2019 AMS Spring Central and Western Joint Sectional Meeting**
Hawaii, USA, March 2019
- **Conference on Diophantine Approximation and Transcendence**
CIRM, France, September 2018.
- **2018 Joint Mathematics Meetings**
San Diego, USA, 10-13 January 2018.
- **2017 CMS Winter Meeting**
Waterloo, Canada, 8-11 December 2017.
- **Workshop on Arithmetic and Complex Dynamics**
Casa Matemática Oaxaca, Mexico, 12-17 November 2017.
- **Mathematical Congress of the Americas 2017**
McGill University, Canada, 24-28 July 2017.
- **Families of algebraic dynamical systems**
Rennes, France, 12-16 June 2017.
- **Workshop on Interactions between Model Theory and Arithmetic Dynamics**
The Fields Institute, Canada, 25-29 July 2016.
- **2016 CMS Summer meeting**
University of Alberta, Canada, 24-27 June 2016.
- **Pacific Northwest Number Theory Conference**
Oregon State University, USA, 14-15 May 2016.
- **2016 Joint Mathematics Meetings**
Seattle, USA, 6-9 January 2016.
- **RTG Workshop on Arithmetic Dynamics**
University of Michigan, Ann Arbor, USA, 3-6 December 2015.
- **Arithmetic 2015: Silvermania**
Brown University, Providence, USA, 11-15 August 2015.
- **Non-Archimedean Geometry and its Applications**
University of Michigan, Ann Arbor, USA, 1-5 June 2015.
- **Arizona Winter School 2015: Arithmetic and Higher-Dimensional Varieties**
University of Arizona, Tucson, USA, 14-18 March 2015.
- **11th PIMS Young Researchers Conference**
University of British Columbia, Vancouver, Canada, 2-4 June 2014.
- **Pacific Northwest Number Theory Conference 2014**
Simon Fraser University, Vancouver, Canada, 17-18 May 2014.
- **Model Theory and its Interactions with Number Theory and**

Arithmetic Geometry

MSRI, Berkeley, USA, 10-11 February 2014.

- **Introductory Workshop: Model Theory, Arithmetic Geometry and Number Theory**

MSRI, Berkeley, USA, 3-7 February 2014.

LANGUAGES Greek (native), English (fluent), German (basic)