

**Contact Information** Sabancı University  
Faculty of Engineering  
& Natural Sciences  
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**E-mail:** tbayraktar@sabanciuniv.edu  
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**Education** **2006–2012** Ph.D. Mathematics,  
Indiana University, Bloomington, USA  
**Dissertation Advisor:** Eric Bedford

**2003–2005** M.Sc Mathematics,  
Middle East Technical University (METU), Turkey

**1998–2002** B.Sc Mathematics,  
Middle East Technical University (METU), Turkey

**Research Interests** Several Complex Variables, Complex Geometry, Holomorphic Dynamics

**Appointments** **02.2020–present** Associate Professor, Sabancı University  
**06.2017–02.2020** Assistant Professor, Sabancı University  
**08.2016–05.2017** Visiting Assistant Professor, University of Hartford  
**08.2014–06.2016** Philip T. Church Postdoctoral Fellow, Syracuse University  
**08.2013–06.2014** Visiting Assistant Professor, Indiana University, Bloomington  
**07.2012–07.2013** Lecturer, Johns Hopkins University  
**08.2006–05.2012** Associate Instructor, Indiana University, Bloomington

**Publications & Preprints**

1. **T. Bayraktar**, Green currents for meromorphic maps of compact Kähler manifolds, *J. Geom. Anal.* 23 (2013), no. 2, 970-998.
2. **T. Bayraktar**, Equidistribution toward the Green current in big cohomology classes, *Internat. J. Math.*, 24 (2013), no. 10, 1350080, 25 pp.
3. **T. Bayraktar and S. Cantat**, Constraints on automorphism groups of higher dimensional manifolds, *J. Math. Anal. Appl.* 405 (2013), no. 1, 209-213.
4. **T. Bayraktar**, Ergodic properties of random holomorphic endomorphisms of  $\mathbb{P}^k$ , *Int. Math. Res. Not. IMRN*, (2015), no. 4, 927-959.
5. **T. Bayraktar**, Equidistribution of zeros of random holomorphic sections, *Indiana Univ. Math. J.*, 65 (2016), no. 5, 1759-1793.
6. **T. Bayraktar**, Zero distribution of random sparse polynomials, *Michigan Math. J.*, 66 (2017), no. 2, 389-419.
7. **T. Bayraktar**, Asymptotic normality of linear statistics of zeros of random polynomials, *Proc. of Amer. Math. Soc.*, 145 (2017), no. 7, 2917-2929.
8. **T. Bayraktar and T. Bloom, and N. Levenberg**, Pluripotential Theory and Convex Bodies, *Sbornik Mathematics* , 209 (2018), no. 3, 67-101.

9. **T. Bayraktar**, Expected number of real roots for random linear combinations of orthogonal polynomials associated with radial weights, *Potential Anal.*, 48 (2018), no. 4, 459-471.
10. **T. Bayraktar**, Almost sure invariance principle for non-autonomous holomorphic dynamics in  $\mathbb{P}^k$ , *Conform. Geom. Dyn.*, 22 (2018), 45-61.
11. **T. Bayraktar**, On global universality for zeros of random polynomials, *Hacet. J. Math. Stat.*, 48 (2019), no. 2, 384-398.
12. **T. Bayraktar, D. Coman, H. Herrmann and G. Marinescu**, A survey on zeros of random holomorphic sections, *Dolomites Res. Notes Approx.*, 11 (2018), no. 4, Special issue dedicated to Norm Levenberg, 1-19.
13. **T. Bayraktar and T. Bloom, N. Levenberg and C. H. Lu**, Pluripotential theory and convex bodies: Large Deviation Principle, *Ark. Mat.*, 57 (2019), no. 2, 247-283.
14. **T. Bayraktar and D. Coman and G. Marinescu**, Universality results for zeros of random holomorphic sections, *Trans. Amer. Math. Soc.*, 373 (2020), no. 6, 3765-3791.
15. **T. Bayraktar**, Mass Equidistribution for Random Polynomials, to appear in *Potential Anal.* DOI: 10.1007/s11118-019-09811-w, <https://arxiv.org/pdf/1808.00932.pdf>.
16. **T. Bayraktar and S. Hussung, N. Levenberg and M. Perera**, Pluripotential theory and convex bodies: A Siciak-Zaharjuta Theorem, submitted, arXiv:1911.03756.
17. **T. Bayraktar**, Sampling Property of Fekete Points for Random Holomorphic Sections, submitted, arXiv:2004.02773.
18. **T. Bayraktar and A. U. Ö. Kışisel**, Expected depth of random real algebraic plane curves, Pre-print, 2020.

## Funding

- TÜBİTAK ARDEB-1001/119F184, PI, (15/11/2019-15/11/2022), Budget 338,750TL
- TÜBİTAK ARDEB-3501/118F049 Career Development Grant, PI, 15/11/2018-15/11/2021, Budget 221,480TL
- Turkish Academy of Sciences, PI (as a part of TUBA-GEBIP Award), 01.2020-01.2023, Budget 60,000TL
- The Science Academy, Turkey, PI (as a part of BAGEP Award), 05.2019-05.2021, Budget 30,000TL
- TÜBİTAK-BİDEB 2232/118C006, PI, 01/02/2018-01/02/2020, Budget 14,000TL
- TÜBİTAK ARDEB-1001/118F405 , Researcher, 15/03/2019-15/03/2022, Budget 415,079TL
- Sabancı University Internal Academic Activity Fund , 06/2018, Budget 10,000TL
- Sabancı University Internal Academic Activity Fund , 02/2019, Budget 10,000TL
- Turkish Mathematics Association (TMD-MAD) Mathematical Research Fund 06/2018, Budget 6,000TL
- Turkish Mathematics Association (TMD-MAD) Mathematical Research Fund 01/2019, Budget 7,500TL

**Awards  
&  
Honors  
&  
Fellowships**

- Mathematics Foundation of Turkey, Masatoshi Gündüz İkedda Research Award, 2019
- Turkish Academy of Sciences, Outstanding Young Scientist Award (TUBA-GEBIP), 2019
- Middle East Technical University Prof. Dr. Mustafa N. Parlar Foundation, Research Incentive Award, 2019
- The Science Academy Turkey, Young Scientist Award (BAGEP), 2019
- Associate Professorship from YÖK, 9/2018
- TÜBİTAK-BİDEB 2232 Scholarship through project BİDEB-118C006
- American Mathematical Society Simons Travel Grant, 2015-2017, Budget 4000USD
- Philip T. Church Postdoctoral Fellowship, Syracuse University, 2014-2016
- Indiana University College of Art and Science Travel Grant, 2012
- Indiana University Mathematics Department Travel Grant, 2008, 2010
- Indiana University Associate Instructorship 2006-2012
- TÜBİTAK, Graduate Scholarship 2003-2005
- Turkish Education Association, Undergraduate Scholarship, 1999-2000

**Invited  
Conference  
Talks**

- Taipei Conference on Complex Geometry, Sinica Taiwan, December 2019
- Workshop on Zeros of random polynomials, American Institute of Mathematics, San Jose USA, June 2019
- 31st Turkish National Mathematics Symposium, Erzincan, Plenary Address, Erzincan September 2018
- Random Matrix Theory 2018, Winter School, Nesin Mathematics Village, February 2018
- Computational Methods and Function Theory Conference, Lublin Poland, July 2017
- Midwest Several Complex Variables Conference, University of Toledo USA, May 2016
- Complex Analysis and Complex Geometry, BIRS Banff Canada, May 2016
- AMS special session, CR Geometry and Partial Differential Equations in Complex Analysis at the Sectional Meeting in Utah USA, April 2016
- Midwestern Workshop on Asymptotic Analysis, Indiana University Bloomington USA, October 2015
- AMS special session, Holomorphic Dynamics at the Joint Mathematics Meetings at San Antonio USA, January 2015
- AMS special session, Complex Dynamics at the Joint Mathematics Meetings in Baltimore USA, January 2014
- Function Theory and Complex Variables Summer School, Şirince, Turkey, June 2013
- Complex and Non-Archimedean Dynamics Workshop, University of Michigan USA, December 2012
- Workshop in Dynamics, University of Illinois at Chicago USA, May 2010

**Seminars &  
Colloquia  
Talks**

- Koç University, Mathematics Seminar, Turkey, October 2019
- Bilkent University, Analysis Seminar, Turkey, March 2019
- Bochum-Essen-Köln-Wuppertal Joint Seminar on Complex Algebraic Geometry and Complex Analysis, July 2018
- Université d'Aix-Marseille Analysis Seminar, France, March 2018
- Istanbul Analysis Seminars, October 2017, December 2011, 2012 and 2013
- Bosphorus University Colloquium, Istanbul, Turkey October 2017
- Mimar Sinan Fine Arts University Colloquium, Istanbul, Turkey October 2017
- Gebze Technical University Colloquium, Istanbul, Turkey December 2017
- University of Auckland New Zealand, Analysis Seminar, July 2016
- Syracuse University, Analysis Seminar, USA, 2014-2016, several times
- Indiana University, Several Complex Variables Seminar, USA, 2011-2015 several times
- Ohio State University, Combinatorics Seminar, ,USA, June 2014
- IUPUI, Mathematical Physics Seminar, USA, November 2013
- University of Michigan, Complex Analysis and Geometry Seminar, USA, October 2013
- Johns Hopkins University, Complex Analysis Seminar, USA, October & November 2012
- Notre Dame University, Complex Analysis Seminar, USA, April 2011
- IUPUI, Dynamical Systems Seminar, USA, April 2011
- Bosphorus University Colloquium, Istanbul, Turkey July 2009

**Academic  
Visits**

- University of Köln, Germany, July 2018
- Université d'Aix-Marseille, France, March 2018
- University of Auckland, New Zealand, July 2016
- Indiana University, April 2015
- Notre Dame University, April 2011
- CIRM, Luminy France, January 2011

**Supervising  
&  
Mentoring**

- Afrim Bojik, Master of Science, Sabanci University, 09.2017-06.2019.
- Çiğdem Çelik, PhD student, Sabanci University, 2018-on going.
- Melike Efe, PhD student, Sabanci University, 2018-on going.
- Ozan Günyüz, Postdoctoral Fellow, Sabanci University, 01.2019-01.2021

**Profesional  
Memberships**

- American Mathematical Society
- Turkish Mathematical Society

## Service

- TÜBİTAK ARDEB 1001 projects MFAG, consultant & panelist, February 2019.
- TÜBİTAK ARDEB 1001 projects MFAG, panelist, November 2018.
- Referee for *J. Differential Geom.*, *J. Math. Anal. Appl.*, *Indiana Univ. Math. J.*, *J. Approx. Theory*, *Comp. Methods Func. Theory* and *Turkish J. Math.*
- Reviewer for AMS Mathematical Reviews and Zentralblatt Math.
- Transfer Committee, Sabancı University, 2017-2019
- Disiplin Committee, Sabancı University, 2017-2018
- Co-Organizer, Research Workshop on Random Real Algebraic Geometry, October 2019, METU NCC, Cyprus
- Co-Organizer, Frontiers in Several Complex Variables and Functional Analysis, May 2019, METU, Ankara/Turkey
- Co-Organizer, Random Real Algebraic Geometry Workshop, January 2019, Nesin Mathematics Village, Izmir/Turkey
- Co-Organizer, Randomness in Complex Analysis and Complex Geometry, June 2018, Nesin Mathematics Village, Izmir/Turkey
- Co-Organizer, İstanbul Analysis Seminars since Fall 2017.
- Co-Organizer, AMS special session on Randomness in Complex Geometry, April 2017, Bloomington IN, USA.

## Synergic Activities

- Nesin Mathematics Village, Lecturer, 2017-2019
- Math Club Lecturer, Syracuse University, 2014-2015.

## Teaching Experience

### *At Sabancı University*

- MATH 505 Complex Analysis, Fall 2019
- MATH 524 Probability Theory, Spring 2019
- MATH 501 Analysis I, Fall 2017
- MATH 502 Analysis II, Spring 2018
- MATH 68003 Special Topics in Several Complex Variables, Fall 2018
- MATH 301 Introduction to Mathematical Analysis, Fall 2018
- MATH 203 Introduction to Probability, Spring 2018 & Spring 2019
- MATH 201 Linear Algebra, Summer 2017

### *At University of Hartford*

- MAT 344 Advanced Engineering Mathematics, Fall 2016, Spring 2017
- MAT 145 Calculus II, Fall 2016
- MAT 442 Introduction to Complex Analysis, Spring 2017

### *At Syracuse University*

- MAT 485 Differential Equations & Linear Algebra, Spring 2016
- MAT 285 Calculus for Life Sciences, Fall 2015
- MAT 331 Linear Algebra, Fall 2014
- MAT 295 Calculus, Spring 2015

### *At Indiana University*

- M119 Brief Survey of Calculus: Fall 2010, Spring 2010, Summer 2012

M118 Finite Mathematics: Summer 2010, Spring 2011, Fall 2013

M211 Calculus I, Fall 2013

M303 Linear Algebra, Spring 2014, Summer 2014

*At Johns Hopkins University*

110.405 Analysis I, Spring 2013

110.201 Honors Multivariable Calculus, Spring 2013

110.107 Calculus II for Biological and Social Sciences, Fall 2012

*At Indiana University as Associate Instructor*

M513-514 Graduate Complex Analysis Series, Grader, Fall 2011-Spring 2012

M311 Vector Calculus, Recitation Leader, Fall 2011

M541 Graduate Partial Differential Equations, Grader, Summer 2008