

Olcay Coşkun

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ACADEMIC POSITIONS

- **Boğaziçi University** İstanbul, Turkey
Full Professor 2026 - today
- **Mathematics Research Center** Baku, Azerbaijan
Full Professor 2024 - 2026
- **Boğaziçi University** İstanbul, Turkey
Full Professor 2017 - 2024
- **Boğaziçi University** İstanbul, Turkey
Associate Professor 2012 - 2017
- **Boğaziçi University** İstanbul, Turkey
Assistant Professor 2009 - 2012
- **Bilkent University** Ankara, Turkey
Instructor Fall 2008

ADMINISTRATIVE POSITIONS

- **Mathematics Research Center** Baku, Azerbaijan
Director 2024 - 2026
- **Department of Mathematics, Boğaziçi University** İstanbul, Turkey
Chair 2022 - 2024
- **TMD - Turkish Mathematical Society** İstanbul, Turkey
Vice-president 2021 - 2024
- **Matematik Dünyası - Popular math magazine of TMD** İstanbul, Turkey
Editor-in-chief 2021 - 2024
- **IMBM - Istanbul Center for Mathematical Sciences** İstanbul, Turkey
Director 2019 - 2022
- **Feza Gürsey Center for Mathematics and Physics** İstanbul, Turkey
Vice chair 2015 - 2018

RESEARCH VISITS

- **University of California at Santa Cruz** Santa Cruz, CA, USA
Fulbright Scholar, also funded by TÜBİTAK August 2018 - July 2019
- **MSRI (Mathematical Sciences Research Institute)** Berkeley, CA, USA
Research Associate January - April 2008

at “Representation theory of finite groups and related topics” supported by TÜBİTAK

• **University of California at Santa Cruz**

Santa Cruz, CA, USA

Junior Specialist

September 2006 - June 2007

Research under supervision of Robert Boltje supported by TÜBİTAK

EDUCATION

- **Bilkent University** Ankara, Turkey
PhD - Mathematics *2004 - 2008*

Advisor: Laurence J. Barker *Thesis:* A correspondence of simple algebraic group functors.

- **Bilkent University** Ankara, Turkey
M.S. - Mathematics *2002 - 2004*

Advisor: Laurence J. Barker *Thesis:* Modular representations and monomial Burnside rings.

- **Bilkent University** Ankara, Turkey
B.S. - Mathematics *1997 - 2002*

Advisor: Laurence J. Barker *Thesis:* Weil representations of $SL(2, \mathbb{Z}/n)$ and $SL(2, \mathbb{Z}_p)$.

HONORS AND AWARDS

- ICM 2026 Travel Support - American Mathematical Society - 2025
- TGC (Turkish Journalists Association) - 47th Sedat Simavi Science Tribute Award - 2023
- TÜBİTAK 2219 - Research Fellowship for Abroad Study, March 2019 – August 2019
- Fulbright Foundation Academic Research Fellowship, August 2018 - March 2019
- Bilim Akademisi (Science Academy of Turkey) Young Scientist Award Program (BAGEP), 2017
- Türk Matematik Vakfı (Turkish Mathematical Foundation) Masatoshi Gündüz İkeda Research Award, 2014
- Boğaziçi University Foundation Academic Encouragement Award, 2009, 2010, 2011, 2012, 2013, 2014, 2015. Yearly award, discontinued after 2016.
- TÜBİTAK Research Fellowship for Abroad Study, 2008
- TÜBİTAK Research Fellowship, 2006 - 2008
- TÜBİTAK Research Fellowship for Abroad Study, 2006 - 2007
- Bilkent University Department of Mathematics Alişbah Fellowship, 2005
- TÜBİTAK Research Fellowship, 2005 - 2006
- Bilkent University Merit Scholarship, 1997 - 2008. (Scholarship for BS, MS and PhD).

RESEARCH PROJECTS WITH FUNDS

- TÜBİTAK Research Grant - (**1001-119F422**) - (2020 - 2023), Classification of simple modules over Green biset functors - (Principal Researcher); Ruslan Muslumov (Ph.D.), Doğa Ulaş Budak (M.S.), Mustafa Akdağ (M.S.), İbrahim Aslan (M.S.), Mehmet Arslan (Post-doc) and Cihan Bahran (Post-doc) were/are fully supported.
- TÜBİTAK Research Grant - (**1002-117F291**) - (2018 - 2019), Alroran İzleçlerinin Basit Modüllerinin Sınıflandırılması (Principal Researcher)
- Boğaziçi University Research Grant - (**11144**) - (2015 - 2017), Dade group of Mackey functors for p -groups (Principal Researcher)
- TÜBİTAK Research Grant - (**1001-115F156**) - (2015 - 2018), Tower Tableaux and Schubert Polynomials (Researcher, Principal Investigator: Muge Taskin); Mustafa Türköz (M.S.) and Gözde Sert (M.S.) were fully supported.
- TÜBİTAK Research Grant - (**1001-113F240**) - (2014 - 2017), Fibered biset functor structure of the character rings (Principal Researcher); Mehmet Arslan (Ph.D.), Deniz Yılmaz (M.S.), Irmak Balçık (M.S.), Ruslan Muslumov(M.S.) were fully supported.
- Boğaziçi University Research Grant - (**7623**) - (2013 - 2015), Gerçel Karakter halkasının yapısı (Principal Researcher)
- TÜBİTAK Career Research Grant - (**1001-109T661**) - (2010 - 2013), Representations of finite groups of Lie type (Principal Researcher); Zehra Bilgin (M.S.) was fully supported.
- Boğaziçi University Research Grant - (**6029**) - (2011 - 2013), Reduced words of permutations (Researcher)

RESEARCH INTERESTS

Representation theory of finite groups, Mackey functors, (fibered) biset functors, category algebras, Green biset functors, block theory, fusion systems, homological algebra.

TEACHING EXPERIENCE - SELECTED COURSES

- Undergraduate Courses: Calculus I and II (for engineering faculty students), **Abstract Mathematics**, Algebra I (Group Theory), **Algebra II (Rings, Fields and Galois Theory)**, Matrix Theory (a linear algebra course for engineering faculty), **Linear Algebra**, Introduction to Set Theory, **Groups and Geometries**, Advanced Group Theory, **Combinatorial Representation Theory**, Representation Theory of Finite Groups, **Category Theory**

- Graduate Courses: Algebra I (Groups, rings and modules), **Algebra II (ring extensions, field extensions and Galois Theory)**, Schubert Calculus, **Finite group representations**, Axiomatic representation theory, **Modular representation theory I and II**, **Category Theory**, Homological Algebra, **Advanced group theory**

GRADUATE STUDENTS - POST-DOC ADVISING

- Post-Doc Advising

Cihan Bahran (2022-2023)

Mehmet Arslan (2020-2021)

- PhD Students

Mustafa Akdağ (candidate)

Ruslan Muslumov, (2022) - Simple functors over section Burnside rings

Mert Sevinç (2019) - The fibered Burnside ring of a fusion system

Mehmet Arslan (2018) - Composition factors of the functor of complex characters

- MS Students

Mustafa Akdağ (2023), On generalizations of the McKay conjecture

İbrahim Aslan (2023) - The p -biset functor of the kernel of monomial linearization map

Said Yılmaz (2022) - Projective representations of finite groups

Doğa Ulaş Budak (2021) - Relative endo-trivial modules

Ebru Beyza Küçük (2019) - Complex Representations of $GL(2, q)$

Ayçin İplikçi (2019) - Mackey functors over fusion systems

Turan Karakurt (2018) - Modular Representations of $GL(2, p)$

Gözde Sert (2018) - A survey on endotrivial modules over p -groups

Ruslan Muslumov (2017) - The Green functor of the character ring of finite groups

Mustafa Türköz (2017) - Co-Advisor, a Physics thesis

Irmak Balçık (2016) - On simple modules over the section Burnside functor

Deniz Yılmaz (2015) - The fibered p -biset functor of the fibered Burnside ring

Zehra Bilgin (2012) - On quotients of Hom-functors, co-Advisor with Arzu Boysal

ADMINISTRATIVE DUTIES - AT BOGAZICI UNIVERSITY

- Professor representative in the faculty board, 2021 - 2022
- Vice chair of the Department of Mathematics, 2016 - 2017 and 2019 - 2022
- Member - graduate assistant admissions committee. (of three members) 2013 - 2024
- Member - Ph.D. qualifying exam committee. 2013 - 2024
- Member - academic advising committee for the Center for Teaching and Learning (CeTeLe). (of 15 members), 2017 - 2024
- Graduate advisor. 2016 - 2017 and 2019 - 2022
- Member - graduate admissions committee. (of five members) 2019 - 2022
- Academic advisor for undergraduates (class of 2011), 2011 - 2021
- Member - Faculty of Arts and Sciences Dean election committee. (of four members) 2022
- Member - hiring committee. (of four members), 2019 - 2020
- Member - graduate curriculum revision committee. (of five members), 2017 - 2018
- Member - hiring committee. (of three members), 2017 - 2018
- Member - colloquium committee. (of two members), 2015 - 2017
- Member - ug curriculum revision committee. (of five members), 2015 - 2016
- Member - graduate admissions committee. (of five members), 2012 - 2017

PROFESSIONAL DUTIES

- Member of the EMS-EMYA (European Mathematical Society Young Academy) Selection committee, 2022 - today.
- Member of the Algebra Panel - TÜBİTAK-ARDEP, 2012 - 2024, to evaluate nation-wide research proposals for funding, twice a year.
- Member of Research Fellowship Evaluation Panel - TÜBİTAK-BİDEB, 2012 - 2024, Evaluation of nation-wide fellowship applications at any level (from undergraduate students to sabbatical of full professors).
- Member of Evaluation Panel - TÜBİTAK-BİDEB, 2020 - 2024, Evaluation of nation-wide research project proposals of undergraduate math students.
- Member of Evaluation Panel, ANR - Agence nationale de la recherche
- A mentor for TÜBİTAK - BİDEB 2248 Program (to mentor undergraduate students from universities in Turkey)

MEMBERSHIPS

- American Mathematical Society
- European Mathematical Society
- Turkish Mathematical Society

PUBLICATIONS

13.1 Representation Theory

- İ. K. Aslan, O. Coşkun: *p-biset functor of monomial Burnside rings I: Composition factors*, **Journal of Pure and Applied Algebra**, 230 (2026) 108302.
- O. Coşkun, D. Yılmaz: *p-bifree biset functors*, **Journal of Algebra**, 704 (2026) 352 - 382.
- O. Coşkun, R. Muslumov: *A Categorical Decomposition of fibered p-biset functors*, **Journal of Algebra**, 701 (2026), 779-821.
- O. Coşkun, R. Muslumov: *Simple functors over the Green biset functor of section Burnside rings*, **Communications in Algebra**, 52 (2) (2024), 668 - 694.
- O. Coşkun, M. Sevinç: *The fibered Burnside ring of a fusion system*, **Int. Journal of Algebra and Comp.** 31 (03) (2021), 453 - 470.
- M. Arslan, O. Coşkun: *The functor of complex characters of finite groups*, **Journal of Algebra** 562 (2020), 115-147.
- O. Coşkun, E. Yalçın: *Obstructions for gluing biset functors*, **Journal of Algebra** 532 (2019), 268-310.
- O. Coşkun, D. Yılmaz: *Fibered p-biset functor structure of fibered Burnside rings*, **Algebras and Representation Theory** 22 (2019), 21-41.
- R. Boltje, O. Coşkun: *Fibered biset functors*, **Advances in Mathematics** 339 (2018), 540-598.
- O. Coşkun: *The Dade group of Mackey functors for p-groups*, **Journal of Algebra** 470 (2017), 172-196.
- O. Coşkun: *Inducing native Mackey functors to biset functors*, **Journal of Pure and Applied Algebra** 219 (2015), 2359-2380.
- O. Coşkun: *Gluing Borel-Smith functions and the group of endo-trivial modules*, **Bulletin of the London Mathematical Society** 43 (2011), 912-926.
- O. Coşkun, S. Pamuk: *Projective resolutions of globally defined Mackey functors in characteristic zero*, **Archiv der Mathematik** 96 (2011), 39-48.

- O. Coşkun: *Ring of subquotients of a finite group II: Pure bisets*, **Journal of Algebra** 324 (2010), 706-731.
- O. Coşkun: *Ring of Subquotients of a finite group I: Linearization*, **Journal of Algebra** 322 (2009), 2773 - 2792.
- O. Coşkun, E. Yalçın: *A Tate cohomology sequence for generalized Burnside rings*, **Journal of Pure and Applied Algebra** 213 (2009), 1306 - 1315.
- O. Coşkun: *Alcahestic subalgebras of the alchemic algebra and a correspondence of simple modules*, **Journal of Algebra** 320 (2008), 2422 - 2450.
- O. Coşkun: *Mackey functors, induction from restriction functors and coinduction from transfer functors*, **Journal of Algebra** 315 (2007), 224 - 248.

13.2 Non-associative Algebras

- O. Coşkun, A. Eden, E. Karabudak: *Revisiting a 19th Century Vector Algebra Book*. **Journal of Humanistic Mathematics**, 15, (2025) 2, 146–185.

13.3 Combinatorial Representation Theory

- O. Coşkun, M. Taşkın: *Tower diagrams and Pieri's Rule*, **Discrete Mathematics** 341 (2018), 3089-3105.
- O. Coşkun, M. Taşkın: *Sorting and generating reduced words*, **Archiv der Mathematik** 101 (2013), 427-436.
- O. Coşkun, M. Taşkın: *Tower tableaux and Schubert polynomials*, **Journal of Combinatorial Theory Series A** 120 (2013), 1976-1995.
- O. Coşkun, M. Taşkın: *Tower Tableaux*, **Journal of Combinatorial Theory Series A** 120 (2013), 843-871.

IN PREPARATION - SUBMITTED

- R. Boltje, O. Coşkun and Ç. Karagüzel: *The functor of trivial source modules*.
- O. Coşkun, R. Muslumov: *Essential algebras of shifted Burnside functors with abelian shifts*.
- O. Coşkun, A. Eden: *An Exceptional 7-dimensional Real Algebra: Octonions, G_2 , and the Fano Plane*.
- O. Coşkun, A. Eden: *Structure of Vidinli Algebras*.

POPULAR ARTICLES (IN TURKISH)

- (*Category Theory*), *Kategoriler teorisi (Kapak Konusu)*, Matematik Dünyası, 119 (2024), 16-63.
- (*Representations of finite groups*), *Sonlu Group Temsilleri (Kapak Konusu)*, Matematik Dünyası, 117 (2023), 17-66.
- (*Groups of order 8*), *8. Mertebeden Gruplar*, Matematik Dünyası, 116 (2023), 89 - 89.
- (*Sorting Permutations*), *Permütasyonları Sıralamak!*, Matematik Dünyası, 114 (2022) 83 - 86.
- (*Two faces of success, in memory of IMBM*), *Başarının iki yüzü, IMBM anısına*, Matematik Dünyası, 113 (2022) 14 - 15.
- (*Galois Groups*), *Galois grupları*, Matematik Dünyası, 112 (2022) 17 - 24.
- (*The Rubik's Cube Group*), *Rubik küp grubu*, Matematik Dünyası, 112 (2022) 50 - 59.
- (*Prime Portraits*), *Asal Portreler*, Matematik Dünyası, 111 (2021) 10 - 13.
- (*A forgotten problem: Feit-Thompson Conjecture*), *Unutulmuş bir problem: Feit-Thompson sanısı*, Matematik Dünyası, 111 (2021) 76 - 78