

Olcay Coşkun

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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 $SL(2, \mathbb{Z}_p)$.

ACADEMIC POSITIONS

- **Boğaziçi University** İstanbul, Turkey
Full Professor
2017 - today
- **Boğaziçi University** İstanbul, Turkey
Associate Professor
2012 - 2017
- **Boğaziçi University** İstanbul, Turkey
Assistant Professor
2009 - 2012
- **Bilkent University** Ankara, Turkey
Instructor
2008 - Autumn

ADMINISTRATIVE POSITIONS

- **Department of Mathematics, Boğaziçi University** İstanbul, Turkey
Chair
July 15, 2022 - today
- **Matematik Dünyası - Popular math magazine of TMD** İstanbul, Turkey
Editor-in-chief
2021 - today
- **TMD - Turkish Mathematical Society** İstanbul, Turkey
Vice-president
2021 - today
- **IMBM - Istanbul Center for Mathematical Sciences** İstanbul, Turkey
Codirector
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, Funded partially 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

HONORS AND AWARDS

- 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 İkedâ 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); 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

Mackey functors, (fibered) biset functors and 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**, Topics in 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:**
 - **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:**
 - **İbrahim Aslan:** (2023) - Expected
 - **Mustafa Akdağ:** (2023) - Expected
 - **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

- Professor representative in the faculty board: 2021-2022
- Vice chair of the Department of Mathematics.: 2019-2022
- Member - graduate assistant admissions committee. (of three members): 2013-today
- Member - Ph.D. qualifying exam committee.: 2013-today
- Member - academic advising committee (Center for Teaching and Learning (CeTeLe)). (of 15 members): 2017-today
- Graduate advisor.: 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
- Vice chair of the Department of Mathematics.: 2016-2017
- Graduate advisor.: 2016-2017
- 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: 2023
- Member of the Algebra Panel - TÜBİTAK-ARDEP: 2012-today
- Member of Research Fellowship Evaluation Panel - TÜBİTAK-BİDEP: 2012-today
- Referee for some math journals:

PUBLICATIONS

18. O. Coşkun, M. Seviniş: *The fibered Burnside ring of a fusion system*, Int. Journal of Algebra and Comp. 31 (03) (2021), 453 - 470
17. M. Arslan, O. Coşkun: *The functor of complex characters of finite groups*, Journal of Algebra 562 (2020), 115-147.
16. O. Coşkun, E. Yalçın: *Obstructions for gluing biset functors*, Journal of Algebra 532 (2019), 268-310.
15. O. Coşkun, D. Yılmaz: *Fibered p -biset functor structure of fibered Burnside rings*, Algebras and Representation Theory 22 (2019), 21-41.
14. R. Boltje, O. Coşkun: *Fibered biset functors*, Advances in Mathematics 339 (2018), 540-598.
13. O. Coşkun, M. Taşkın: *Tower diagrams and Pieri's Rule*, Discrete Mathematics 341 (2018), 3089-3105.
12. O. Coşkun: *The Dade group of Mackey functors for p -groups*, Journal of Algebra 470 (2017), 172-196.
11. O. Coşkun: *Inducing native Mackey functors to biset functors*, Journal of Pure and Applied Algebra 219 (2015), 2359-2380.
10. O. Coşkun, M. Taşkın: *Sorting and generating reduced words*, Archiv der Mathematik 101 (2013), 427-436.
9. O. Coşkun, M. Taşkın: *Tower tableaux and Schubert polynomials*, Journal of Combinatorial Theory Series A 120 (2013), 1976-1995.
8. O. Coşkun, M. Taşkın: *Tower Tableaux*, Journal of Combinatorial Theory Series A 120 (2013), 843-871.
7. O. Coşkun: *Gluing Borel-Smith functions and the group of endo-trivial modules*, Bulletin of the London Mathematical Society 43 (2011), 912-926.
6. O. Coşkun, S. Pamuk: *Projective resolutions of globally defined Mackey functors in characteristic zero*, Archiv der Mathematik 96 (2011), 39-48.
5. O. Coşkun: *Ring of subquotients of a finite group II: Pure bisets*, Journal of Algebra 324 (2010), 706-731.
4. O. Coşkun: *Ring of Subquotients of a finite group I: Linearization*, Journal of Algebra 322 (2009), 2773 - 2792.
3. O. Coşkun, E. Yalçın: *A Tate cohomology sequence for generalized Burnside rings*, Journal of Pure and Applied Algebra 213 (2009), 1306 - 1315.
2. O. Coşkun: *Alcahestic subalgebras of the alchemic algebra and a correspondence of simple modules*, Journal of Algebra 320 (2008), 2422 - 2450.
1. O. Coşkun: *Mackey functors, induction from restriction functors and coinduction from transfer functors*, Journal of Algebra 315 (2007), 224 - 248.

PREPRINTS

1. R. Boltje, O. Coşkun and Ç. Karagüzel: *The functor of trivial source modules.*
2. O. Coşkun, R. Muslumov: *Simple functors over the Green biset functor of section Burnside rings.*

POPULAR ARTICLES

As the editor in chief of the journal of Matematik Dünyası, it is part of my duty to write popular articles (each refereed). This is why I have many of them in a short period.

6. *Permütasyonları Sıralamak!*, Matematik Dünyası, 114 (2022) 83 - 86.
5. *Başarının iki yüzü*, Matematik Dünyası, 113 (2022) 14 - 15.
4. *Galois grupları*, Matematik Dünyası, 112 (2022) 17 - 24.
3. *Rubik küp grubu*, Matematik Dünyası, 112 (2022) 50 - 59.
2. *Asal Portreler*, Matematik Dünyası, 111 (2021) 10 - 13.
1. *Unutulmuş bir problem: Feit-Thompson sanısı*, Matematik Dünyası, 111 (2021) 76 - 78