
CONTACT INFORMATION Department of Mathematics, Faculty of Arts and Sciences, Office No: AS 325, Eastern Mediterranean University, Famagusta, North Cyprus Via Mersin 10, Turkey *Office Phone:* +90 392 630 241

E-mail: neset.turgay@emu.edu.tr

NATIONALITY Turkish
DATE OF BIRTH 1982
MARITAL STATUS Single

RESEARCH INTERESTS Algebraic topology; especially Steenrod algebra (MSC 55S10), Hopf algebras; in particular Leibniz-Hopf algebra, Overlapping shuffle algebra (MSC 57T05), Digital Geometry

EDUCATION **University of Swansea**, Swansea, Wales, UK

Ph.D., Mathematics, February 2013

- Thesis: *Conjugation invariants in word Hopf algebras*
- Supervisor: [Assoc. Prof. Dr. Martin Crossley](#)
- Second Supervisor: [Prof. Dr. Tomasz Brzezinski](#)

Ege University, Izmir, Turkey

M.S., Mathematics, July 2009

- Thesis: *Calculations in the Steenrod algebra*
- Supervisor: [Prof. Dr. Ismet Karaca](#)

University of Aberdeen, Aberdeen, Scotland, UK

Erasmus Programme, Mathematics 2008-2009

- Research subject: *Steenrod algebra*
- Supervisor: [Prof. Dr. Stephen Theriault](#)

Ege University, Izmir, Turkey

B.S., Mathematics June 2006

ACADEMIC TITLES

- Associate professor (Docent) in Mathematics, by Inter-University Council (UAK) of Turkey (Since 6 March 2018)
- Ph.D. (Since 28 February 2013)

EMPLOYMENT

- Part-time lecturer, Eastern Mediterranean University, 2016-Present.

ACADEMIC
EXPERIENCE

- Part-time lecturer at Eastern Mediterranean University, February 2016 –
- Visitor, Ege University Mathematics Department, 2013-2015.
- Tutor, Swansea, Further Maths Support Programme, Wales Institute of Mathematical and Computational Sciences, 2012.
- Tutor, Swansea Maths Master classes February-March 2012.
- Student Demonstrator, Swansea University, UK, 2009-2013.
- Volunteer tutorial assistant, Introductory to Mathematics, University of Aberdeen, UK, Spring 2008.

ARTICLES
PUBLISHED IN
JOURNALS
COVERED BY SCI
AND SCI
EXPANDED,
INTERNATIONAL

1. G. Kovács, B. Nagy, G. Stomfai, **N.D.Turgay**, B. Vizvári, B. On Chamfer Distances on the Square and Body-Centered Cubic Grids: An Operational Research Approach. *Mathematical Problems in Engineering* 2021, (2021), doi:[10.1155/2021/5582034](https://doi.org/10.1155/2021/5582034) (SCI-Expanded)
2. G. Kovács, B. Nagy, **N.D.Turgay**, Distance on the Cairo pattern. *Pattern Recognition Letters* 145, (2021), 141–146 doi:[10.1016/j.patrec.2021.02.002](https://doi.org/10.1016/j.patrec.2021.02.002) (SCI-Expanded)
3. G. Kovács, B. Nagy, G. Stomfai, **N.D.Turgay**, B. Vizvári, B. Discrete Optimization: The Case of Generalized BCC Lattice. *Mathematics* 9(3), 208, (2021), doi:[10.3390/math9030208](https://doi.org/10.3390/math9030208) (SCI-Expanded)
4. **N.D.Turgay**, I. Karaca, The Arnon bases in the Steenrod algebra. *Georgian Mathematical Journal* 27(4), (2020), 649–654 doi:[10.1515/gmj-2018-0076](https://doi.org/10.1515/gmj-2018-0076) (SCI-Expanded)
5. **N.D.Turgay**, On The Mod p Steenrod algebra and the Leibniz-Hopf Algebra, *Electronic Research Archive* 28(2), (2020), 951–959 doi:[10.3934/era.2020050](https://doi.org/10.3934/era.2020050) (SCI-Expanded)
6. **N.D.Turgay**, Invariants under decomposition of the conjugation in the mod 2 dual Leibniz-Hopf Algebra. *Miskolc Math Notes* 19(2), (2018), 1217–1222. doi:[10.18514/MMN.2018.2591](https://doi.org/10.18514/MMN.2018.2591) (SCI-Expanded)
7. **N.D.Turgay**, An alternative approach to the Adem relations in the mod p Steenrod algebra, *Comptes rendus de l'Académie bulgare des Sciences* 70(4), (2017), 457–466 (SCI-Expanded)
8. **N.D.Turgay**, S.Kaji, The mod 2 dual Steenrod algebra as a subalgebra of the mod 2 dual Leibniz-Hopf algebra, *Journal of Homotopy related Structures*, 12(3), (2017), 727–739 doi:[10.1007/s40062-016-0163-x](https://doi.org/10.1007/s40062-016-0163-x) (SCI-Expanded)
9. **N.D.Turgay**, An alternative approach to the Adem relations in the mod 2 Steenrod algebra, *Turkish Journal of Mathematics*, 38(5), (2014), 924-934. doi:[10.3906/mat-1309-6](https://doi.org/10.3906/mat-1309-6) (SCI-Expanded)
10. M. D. Crossley, **N.D.Turgay**, Conjugation invariants in the mod 2 dual Leibniz-Hopf algebra, *Communications in Algebra*, 41(9), (2013), 3261–3266. doi:[10.1080/00927872.2012.682675](https://doi.org/10.1080/00927872.2012.682675) (SCI-Expanded)

11. M. D. Crossley, **N.D.Turgay**, Conjugation Invariants in the Leibniz-Hopf algebra, *Journal of Pure and Applied Algebra*, 217, (2013), 2247–2254. doi:[10.1016/j.jpaa.2013.03.003](https://doi.org/10.1016/j.jpaa.2013.03.003) (SCI)

- ARTICLES
PUBLISHED IN
JOURNALS
COVERED BY
OTHER INDEXES,
INTERNATIONAL
1. Hassan Al H., Gbrel A., **N.D.Turgay**, On prime near-rings with generalized (σ, τ) -derivations (vol 45, pg 249, 2005), *Kyungpook Mathematical Journal*, 60(2) 2020, 415–421. doi:[10.5666/KMJ.2020.60.2.415](https://doi.org/10.5666/KMJ.2020.60.2.415) (ESCI, SCOPUS, AMS-MR)
 2. **N.D.Turgay**, On the X basis in the Steenrod algebra, *Journal of Linear and Topological Algebra* 08(4) (2019), 215–218. (zbMath, Google Scholar)
 3. **N.D.Turgay**, A remark on the conjugation in the Steenrod algebra. *Communications of the Korean Mathematical Society*, 30(3) (2015), 269–276. doi:[10.4134/CKMS.2015.30.3.269](https://doi.org/10.4134/CKMS.2015.30.3.269) (ESCI, SCOPUS, AMS-MR)
 4. **N.D.Turgay**, On the conjugation invariant problem in the mod p dual Steenrod algebra. *Italian Journal of Pure and Applied Algebra*, 34 (2015), 151–158. (ESCI, SCOPUS)
 5. **N.D.Turgay**, A Short Note on the Conjugation in the Leibniz-Hopf Algebra, *Journal of Mathematics and System Science*, 4(1) (2014) 34–36. (EBSCO, Google Scholar, Index Copernicus, etc.)
 6. **N.D.Turgay**, Some notes on the dual Leibniz-Hopf algebra, *Journal of Mathematics and System Science*, 3(11) (2013), 573–576. (EBSCO, Google Scholar, Index Copernicus, etc.)
 7. **N.D.Turgay**, A note on conjugation invariants in the dual-Leibniz Hopf algebra, *International journal of algebra* 7(17) (2013), 809–815. doi:[10.12988/ija.2013.31099](https://doi.org/10.12988/ija.2013.31099) (AMS-MR, EBSCO, Google Scholar, ULRICH's Periodicals Directory, etc.)

TALKS AT
SEMINARS,
CONFERENCES
AND
COLLOQUIUM

1. Overlapping shuffle algebra and the mod p dual Steenrod algebra, contributed online talk by zoom, [Euro Asia 9th. International Congress on Applied Sciences](#) Erzurum, Turkey, August 11-12, 2021 (abstract accepted and available at conference webpage).
2. Invariant elements in the mod 2 dual Leibniz-Hopf algebra, contributed online talk by zoom, [6th international gap mathematics-engineering-science and health sciences congress](#) Sanliurfa, Turkey, June 26-27, 2021 (abstract accepted and available at conference webpage).
3. A note on change of bases in the mod- p dual Steenrod algebra, contributed online talk by zoom, [6th international gap mathematics-engineering-science and health sciences congress](#) Sanliurfa, Turkey, June 26-27, 2021 (abstract accepted and available at conference webpage).

4. Mod p Leibniz Hopf algebra and the conjugation in the mod p Steenrod algebra, contributed online talk by zoom, [International 19 may innovative scientific approaches congress-v](#)Samsun, Turkey, May 19, 2021 (abstract accepted and available at conference webpage).
5. Leibniz Hopf algebra and the anti-automorphism of the mod 2 Steenrod algebra, contributed online talk by zoom, [Ispac 10th international conference on engineering & natural sciences](#) Siirt University, Siirt, Turkey, May 16-18, 2021 (abstract accepted and available at conference webpage).
6. Some results of conjugation in the mod 2 dual Leibniz-Hopf algebra, contributed talk, [XV. Antalya Algebra Days](#) Izmir, Turkey, 22 - 26 May, 2013 (abstract accepted and available at conference webpage).
7. Conjugation invariants in the Leibniz-Hopf algebra, contributed talk, University of Cambridge, ICMS, 26th British Topology Meeting 2012, CMS, U.K, September 6-8, 2012 (abstract accepted and available at conference webpage).
8. Conjugation invariants in the mod-2 Leibniz-Hopf algebra, contributed talk, [Queen's University Belfast](#), Algebra, Combinatorics, Dynamics and Applications, U.K, August 27-30, 2012 (abstract accepted and available at conference webpage).
9. Conjugation invariants in the Leibniz-Hopf algebra, contributed talk, [University of Copenhagen](#), Young Topologists Meeting, Denmark, July 26, 2012 (abstract accepted and available at conference webpage).
10. Conjugation invariants in the dual Leibniz-Hopf algebra, contributed talk, University of Edinburgh, ICMS, 26th British Topology Meeting, U.K, September 1-3, 2011 (abstract accepted).
11. Conjugation invariants in the mod- p and Integral Leibniz-Hopf algebra, invited talk, University of Manchester, Departmental Topology Seminar, 5th November 2012.
12. Free conjugation invariants, contributed talk, Gregynog, [Mathematics Colloquium](#), U.K, 2011.
13. Contribution to weekly topology seminar for undergraduate students, coordinated by Prof. Ismet Karaca, Mathematics Department Ege University, 2007-2008.

POSTER
PRESENTATIONS

- University of Manchester, *Calculations in the Steenrod algebra*, MAGIC Postgraduate Student Conference, U.K, Jan 12-14, 2009.

PROJECTS

- Scientific Research Project (BAP 08-FEN-003) Ege University, Turkey 2009
Project Title: Some calculations in the Steenrod algebra
Director of the Project: Prof. Dr. Ismet Karaca

- RESEARCH FELLOWSHIPS, GRANTS AND SCHOLARSHIPS
- Departmental Scholarship, Swansea University, U.K. 2009-2012.
 - Socrates Erasmus Grant, University of Aberdeen 2008-2009.
 - Research project “Some calculations in the Steenrod algebra” financed by Faculty of Science, Ege University, Turkey 2008-2009.
- AWARDS
- Publication Awards (8 times), Eastern Mediterranean University 2017-2021.
 - Departmental Scholarship, Swansea University. 2009-2012.
 - Erasmus Grant, University of Aberdeen. 2008-2009.
- REFEREE WORK
- *Bulletin of the Malaysian Mathematical Sciences Society* (SCI-Expanded) (2022)
 - *Bulletin of International Mathematical Virtual Institute* (AMS-MR) (2022)
 - *Italian Journal of Pure and Applied Algebra* (ESCI) (2021)
 - *Electronic Research Archive* (SCI-Expanded) (2020)
 - *Filomat* (SCI-Expanded) (2020)
 - *Hacettepe Journal of Mathematics & Statistics* (SCI-Expanded) (2019)
 - *Cogent Mathematics & Statistics - Taylor & Francis Online* (ESCI) (2015)
- REVIEW
- MR4163079 Zheng, Yiwei; Gao, Yun; Hu, Naihong *Finite-dimensional Hopf algebras over the Hopf algebra $H_{b,1}$ of Kashina*. *J. Algebra* 567 (2021), 613–659. 16T05 (16T99)
- SERVICES
- Internal M.S. examiner, Eastern Mediterranean University 2016.
 - Head of session in Ispec 10th international conference on engineering & natural sciences Siirt University, Siirt, Turkey, May 16-18, 2021.
- DEPARTMENTAL SERVICES
- Representative instructor in Orientation Days, Eastern Mediterranean University 2016-2017
 - Representative Ph.D. student, Swansea University, UK, 2009-2012.
- LANGUAGES
- Turkish as native language.
 - 2014-YDS (National English Proficiency Exam) Score: 81.25/100
- UNDERGRADUATE COURSES TAUGHT IN TURKISH 2016-2022
- Mate 111-General Mathematics
 - Mate 163-Discrete Mathematics
 - Mate 204-Linear Algebra II
 - Mate 218-Linear Algebra II
 - Mate 220-Linear Algebra II
 - Mate 306-Topology
 - Mate 319-Analytic Geometry I
- UNDERGRADUATE COURSES TAUGHT IN ENGLISH 2016-2022
- Math 106-Linear Algebra
 - Math 134-Discrete Mathematics for Information Technology
 - Math 135-Basic Mathematics for Health Sciences
 - Math 151-Calculus I

- Math 152-Calculus II
- Math 163-Discrete Mathematics
- Math 361-Elementary Number Theory
- Math 494-Topology

COMPUTER
EXPERIENCE

- Latex, Mathematica, Maple, Matlab

COURSES,
CONFERENCES
AND MEETINGS
ATTENDED

- 36th Meeting of New Directions in Group Theory and Triangulated Categories, 29th March 2022, zoom meeting.
- Dynamics, Topology and Computations Bedlowa, Poland June 15-20, 2015.
- Applied Algebraic Topology Workshop, Castro Urdiales, CIEM Spain, 2014.
- Mathematical Structures of Computation, Directed topology, France, 2014.
- TTT86, Sheffield University, UK, 2013.
- Modern Perspectives in Homotopy Theory: Infinity Categories and Homotopy Type Theory, Swansea University, 10-13 April, 2012.
- Fourth Sheffield Homotopy Miniconference: Homotopy and Geometry of Loop Spaces 20-22 January, 2012.
- YTM, EPFL, Lausanne, Switzerland, June 14 - 18, 2011.
- TTT75, Sheffield University, UK, 2010.
- International Conference on Algebraic and Geometric Topology, Capital Normal University, Beijing, China, 28 June - 2 July, 2010.
- Toric Topology - Malaga Spring School, Malaga University, Spain, 2010.
- ICMS, Generic Skills Courses for First Year Postgraduates in the Mathematical Sciences, Edinburgh University, UK, Spring 2009.
- ICMS, Generic Skills Courses for Mathematics Later Years Postgraduates, Edinburgh University, UK, Autumn 2008.

ADDITIONAL
EXPERIENCE

- Treasurer of AEGEE "European Students Forum" Abertawe, 2009-2012.
- ACE (Aiming for College Education) day leader, Student ACE day tomorrow with Reaching Winder, Swansea University, 2011-2013.
- Swansea study abroad programme Weihai, China, 2010.