

# Prof. ZEKERİYA ARVASI

## Personal Information

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## Education Information

Doctorate, University of Wales, Bangor, Mathematics, United Kingdom 1991 - 1994

Postgraduate, University of Leeds, Mathematics, United Kingdom 1990 - 1991

Undergraduate, Anadolu University, Faculty Of Science, Department Of Mathematics, Turkey 1984 - 1988

## Dissertations

Doctorate, Applications in commutative algebra of the Moore complex of a simplicial algebra, University of Wales, Bangor, Mathematics, 1994

Postgraduate, Macaulay and Gorenstein Rings, University of Leeds, Mathematics, 1991

## Academic Titles / Tasks

Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2003 - Continues

Associate Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 1998 - 2003

Assistant Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 1995 - 1998

## Academic and Administrative Experience

Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, 2012 - Continues

Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, 2011 - Continues

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **On classifying simplicial modules**  
ARVASI Z., ILGAZ ÇAĞLAYAN E.  
Communications in Algebra, vol.52, no.3, pp.945-959, 2024 (SCI-Expanded)
- II. **Computing 3-dimensional groups: Crossed squares and cat2-groups**  
ARVASI Z., Odabas A., Wensley C. D.  
JOURNAL OF SYMBOLIC COMPUTATION, vol.114, pp.267-281, 2023 (SCI-Expanded)
- III. **Commutativity degree of crossed modules**  
ARVASI Z., Çağlayan E. I., ODABAŞ A.  
Turkish Journal of Mathematics, vol.46, no.1, pp.242-256, 2022 (SCI-Expanded)

- IV. **On 2-algebras: crossed R-modules and categorical R-algebras**  
Arvasi Z., Ilgaz Çağlayan E.  
TURKISH JOURNAL OF MATHEMATICS, vol.45, no.3, pp.1319-1336, 2021 (SCI-Expanded)
- V. **Computing 2-dimensional algebras: Crossed modules and Cat1-algebras**  
Arvasi Z., Odabas A.  
Journal of Algebra and its Applications, vol.15, no.10, 2016 (SCI-Expanded)
- VI. **Homotopical aspects of commutative algebras I: freeness conditions for crossed squares**  
ARVASI Z., ULUALAN E.  
JOURNAL OF HOMOTOPY AND RELATED STRUCTURES, vol.10, no.3, pp.495-518, 2015 (SCI-Expanded)
- VII. **Freeness conditions for quadratic modules and quadratic chain complexes**  
ARVASI Z., ULUALAN E.  
GEORGIAN MATHEMATICAL JOURNAL, vol.18, no.4, pp.615-637, 2011 (SCI-Expanded)
- VIII. **Three-crossed modules**  
Arvasi Z., Kuzpinari T. S., Uslu E. O.  
Homology, Homotopy and Applications, vol.11, no.2, pp.161-187, 2009 (SCI-Expanded)
- IX. **Quadratic and 2-crossed modules of algebras**  
Arvasi Z., Ulualan E.  
Algebra Colloquium, vol.14, no.4, pp.669-686, 2007 (SCI-Expanded)
- X. **3-Types of simplicial groups and braided regular crossed modules**  
Arvasi Z., Ulualan E.  
Homology, Homotopy and Applications, vol.9, no.1, pp.139-161, 2007 (SCI-Expanded)
- XI. **Braided crossed modules and reduced simplicial groups**  
Arvasi Z., Kocak M., Ulualan E.  
Taiwanese Journal of Mathematics, vol.9, no.3, pp.477-488, 2005 (SCI-Expanded)
- XII. **Freeness Conditions for 2-Crossed Modules of Commutative Algebras**  
ARVASI Z., PORTER T.  
Applied Categorical Structures, vol.13, no.3, pp.455-471, 2005 (SCI-Expanded)
- XIII. **Annihilators, Multipliers and Crossed Modules**  
Arvasi Z., Ege U.  
Applied Categorical Structures, vol.11, no.6, pp.487-506, 2003 (SCI-Expanded)
- XIV. **Simplicial and crossed lie algebras**  
AKÇA İ. İ., ARVASI Z.  
Homology, Homotopy and Applications, vol.4, no.1, pp.43-57, 2002 (SCI-Expanded)
- XV. **From simplicial groups to crossed complexes**  
ARVASI Z.  
Turkish Journal of Mathematics, vol.22, no.2, pp.185-192, 1998 (SCI-Expanded)
- XVI. **A combinatorial definition of n-types of simplicial commutative algebras**  
Arvasi Z., Koçak M., Alp M.  
Turkish Journal of Mathematics, vol.22, no.3, pp.243-271, 1998 (SCI-Expanded)
- XVII. **Crossed N-cubes and n-crossed complexes of commutative algebras**  
ARVASI Z., KOÇAK M.  
Turkish Journal of Mathematics, vol.22, no.2, pp.127-143, 1998 (SCI-Expanded)
- XVIII. **Dold-Kan type theorems for n-types of simplicial commutative algebras**  
ARVASI Z., KOÇAK M.  
Turkish Journal of Mathematics, vol.22, no.2, pp.171-184, 1998 (SCI-Expanded)
- XIX. **Crossed squares and 2-crossed modules of commutative algebras**  
Arvasi Z.  
Theory and Applications of Categories, vol.3, pp.160-181, 1997 (SCI-Expanded)
- XX. **Higher dimensional peiffer elements in simplicial commutative algebras**  
Arvasi Z., Porter T.  
Theory and Applications of Categories, vol.3, pp.1-23, 1997 (SCI-Expanded)

## **XXI. Simplicial and crossed resolutions of commutative algebras**

Arvasi Z., Porter T.

Journal of Algebra, vol.181, no.2, pp.426-448, 1996 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **Computing High Dimensional Algebras with GAP, II**  
ARVASI Z., ODABAŞ A.  
Tathapi, vol.19, no.55, pp.443-447, 2020 (Peer-Reviewed Journal)
- II. **Computing High Dimensional Algebras with GAP, I**  
ARVASI Z., ODABAŞ A.  
Tathapi, vol.19, no.55, pp.428-432, 2020 (Peer-Reviewed Journal)
- III. **(Co)-Induced Two Crossed Modules**  
EGE ARSLAN U., ARVASI Z., ONARLI G.  
arXiv, 2013 (Non Peer-Reviewed Journal)
- IV. **Crossed Modules of Algebras**  
ARVASI Z.  
Mathematical & Computational Applications, vol.9, no.2, pp.173-182, 2004 (Peer-Reviewed Journal)
- V. **Higher Dimensional Free Crossed Modules of Commutative Algebras**  
ARVASI Z., EGE ARSLAN U.  
Algebra, Groups and Geometry, vol.19, no.2, pp.129-145, 2002 (Peer-Reviewed Journal)
- VI. **2 Crossed Complexes and Crossed Resolutions of Lie Algebras**  
ARVASI Z.  
Algebra, Groups and Geometry, vol.16, pp.452-479, 1999 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **2-ALGEBRAS WITH GAP, II : IMPLEMENTATIONS**  
ARVASI Z., ODABAŞ A.  
INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY, ROPAR, India, 16 - 18 March 2018
- II. **2-ALGEBRAS WITH GAP, I : CROSSED MODULES AND CAT-1 ALGEBRAS**  
ARVASI Z., ODABAŞ A.  
INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY, ROPAR, India, 16 - 18 March 2018
- III. **The package XModAlg**  
ARVASI Z., ODABAŞ A.  
International Conference on Applied Analysis and Mathematical Modeling, 8 - 12 June 2015
- IV. **CLASSIFICATION OF GROUPS UP TO ISOCLINISM WITH GAP**  
ARVASI Z., ODABAŞ A.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELLING, İstanbul, Turkey, 8 - 12 June 2015

## **Supported Projects**

ARVASI Z., Project Supported by Higher Education Institutions, Çaprazlanmış Modüller Üzerine, 2015 - 2017

## **Metrics**

Publication: 31

Citation (WoS): 48

Citation (Scopus): 102

H-Index (WoS): 4

H-Index (Scopus): 6