Prof. İBRAHİM İLKER AKÇA

Personal Information

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Education Information

Doctorate, Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, Turkey 1996 - 2002
Postgraduate, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, Turkey 1994 - 1996
Undergraduate, Anadolu University, Faculty Of Science, Department Of Mathematics, Turkey 1990 - 1994

Dissertations

Doctorate, Bir Pro-C Simplisel Objenin Moore Kompleksinin Uygulamaları, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2002
Postgraduate, Riemann Yüzeylerinde Klasik Teoremler, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 1996

Research Areas

Algebraic Topology

Academic Titles / Tasks

Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2019 - Continues
Associate Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2014 - 2019
Assistant Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2003 - 2014
Research Assistant, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 1994 - 2003

Academic and Administrative Experience

Head of Department, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2021 - Continues
Deputy Head of Department, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2003 - 2012

Advising Theses

Akça İ. İ., Değişmeli Cebirlerin Çaprazlanmış Modülleri ve Kategoriksel Denk Yapılar, Postgraduate, A.ÇELİK(Student), 2020

AKÇA İ. İ., R-Cebiroid Çaprazlanmış Modülleri Üzerine, Doctorate, G.KAHRIMAN(Student), 2019

AKÇA İ. İ., Grupların Abelyen olmayan tensör çarpımı, Postgraduate, I.DOĞANAY(Student), 2018

AKÇA İ. İ., Rackların çaprazlanmış modüllerinin kategoriksel özellikleri, Doctorate, H.GÜLSÜN(Student), 2017

AKÇA İ. İ., 2-çaprazlanmış modül morfizmlerinin homotopisi, Doctorate, K.EMİR(Student), 2015

AKÇA İ. İ., Çaprazlanmış modül morfizmlerinin homotopileri üzerine, Postgraduate, R.SAKA(Student), 2014

AKÇA İ. İ., 2-cebirlerin representasyonu, Doctorate, N.ASLAN(Student), 2013

AKÇA İ. İ., R-cebiroid çaprazlanmış modüllerinin kategoriksel özellikleri, Doctorate, O.AVCIOĞLU(Student), 2012

AKÇA İ. İ., İnterest kategorileri, Doctorate, Y.BOYACI(Student), 2012

AKÇA İ. İ., 2-profinite gruplar, Postgraduate, Ö.HANDE(Student), 2010

AKÇA İ. İ., Örtme uzaylarının temel grupları üzerine, Postgraduate, G.KEFELİ(Student), 2008

AKÇA İ. İ., Serbest profinite gruplar, Postgraduate, H.SERİM(Student), 2006

AKÇA İ. İ., Pseudosimplisel cebir, Doctorate, S.PAK(Student), 2006

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Equivalence between (pre)cat(1)-R-algebroids and (pre)crossed modules of R-algebroids**
AKÇA İ. İ., Avcioglu O.
BULLETIN MATHEMATIQUE DE LA SOCIETE DES SCIENCES MATHEMATIQUES DE ROUMANIE, vol.65, no.3, pp.267-288, 2022 (SCI-Expanded)

II. **Homotopies of crossed complex morphisms of associative R-algebras**
Akça İ. İ., Avcıoğlu O.
GEORGIAN MATHEMATICAL JOURNAL, vol.28, no.2, pp.163-172, 2021 (SCI-Expanded)

III. **Fibrations of 2-crossed modules**
EGE ARSLAN U., AKÇA İ. İ., Irmak G. O., Avcioglu O.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.42, no.16, pp.5293-5304, 2019 (SCI-Expanded)

IV. **Two-fold homotopy of 2-crossed module maps of commutative algebras**
Akça İ. İ., Emir K., Martins J.
COMMUNICATIONS IN ALGEBRA, vol.47, no.1, pp.289-311, 2019 (SCI-Expanded)

V. **Free modules and crossed modules of R-algebroids**
Avcioglu O., AKÇA İ. İ.
TURKISH JOURNAL OF MATHEMATICS, vol.42, no.6, pp.2863-2875, 2018 (SCI-Expanded)

VI. **POINTED HOMOTOPY OF MAPS BETWEEN 2-CROSSED MODULES OF COMMUTATIVE ALGEBRAS**
AKÇA İ. İ., EMİR K., Martins J. F.
HOMOLOGY HOMOTOPY AND APPLICATIONS, vol.18, no.1, pp.99-128, 2016 (SCI-Expanded)

VII. **Pseudo simplicial groups and crossed modules**
Akça İ. İ., Pak S.
Turkish Journal Of Mathematics, vol.34, no.4, pp.475-488, 2010 (SCI-Expanded)

VIII. **Compactifications of Metric Spaces**
Koçak M., Akça İ. İ.
Taiwanese Journal Of Mathematics, vol.11, pp.15-26, 2007 (SCI-Expanded)

IX. **Non-homogeneity of the remainder sR backslash R of the Samuel compactification of R**
Akca İ. İ., Kocak M.
TOPOLOGY AND ITS APPLICATIONS, vol.149, pp.239-242, 2005 (SCI-Expanded)

X. **Simplicial and crossed lie algebras**
AKÇA İ. İ., ARVASİ Z.
Homology, Homotopy and Applications, vol.4, no.1, pp.43-57, 2002 (SCI-Expanded)

Articles Published in Other Journals

I.   **Homotopies of 2-Algebra Morphisms**
AKÇA İ. İ., EGE ARSLAN U.
Communications in Advanced Mathematical Sciences, vol.5, no.4, pp.170-179, 2022 (Peer-Reviewed Journal)

II. **Categorical Properties of Racks**
GÜLSÜN AKAY H., AKÇA İ. İ.
New Trends in Mathematical Sciences, vol.6, no.1, pp.131-138, 2018 (Peer-Reviewed Journal)

III. **Homotopies of Crossed Modules of Lie Algebras**
Akça İ. İ., Sidal Y.
Konuralp Journal of Mathematics, vol.6, no.2, pp.259-263, 2018 (Peer-Reviewed Journal)

IV. **Coproduct of Crossed A-Modules of R-Algebroids**
AVCIOĞLU O., AKÇA İ. İ.
Topol. Algebra Appl., vol.5, no.1, pp.37-48, 2017 (Peer-Reviewed Journal)

V.   **On generators of Peiffer ideal of a pre-R-algebroid in a precrossed module and applications**
AVCIOĞLU O., AKÇA İ. İ.
New Trends in Mathematical Sciences, vol.4, no.5, pp.148-155, 2017 (Peer-Reviewed Journal)

VI. **Pullback Cat-1 Racks**
GÜLSÜN AKAY H., AKÇA İ. İ.
konuralp journal of mathematics, vol.5, no.1, pp.106-112, 2017 (Peer-Reviewed Journal)

VII. **ON PULLBACK AND INDUCED CROSSED MODULES OF R-ALGEBROIDS**
Avcioglu O., AKÇA İ. İ.
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS,
vol.66, no.2, pp.225-242, 2017 (ESCI)

VIII. **Pseudo Simplicial Lie Algebras**
AKÇA İ. İ.
Algebra Groups and Geometries, vol.34, pp.159-170, 2017 (Peer-Reviewed Journal)

IX. **PSEUDO SIMPLICIAL ALGEBRAS**
AKÇA İ. İ., EGE ARSLAN U.
Algebras Groups and Geometries, vol.27, no.1, pp.25-36, 2010 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I.   **Fibrations of 2-crossed modules**
EGE ARSLAN U., AKÇA İ. İ., Irmak g. o., AVCIOĞLU O.
INTERNATIONAL CONFERENCE ON MATHEMATICS, 3 - 06 July 2018

II. **Completeness of Category of Rack Crossed Modules**
GÜLSÜN AKAY H., AKÇA İ. İ.
INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), 11 - 13 May
2018

III. **Fibrations of R-algebroids, Modules and Crossed Modules of R-algebroids**
AVCIOĞLU O., AKÇA İ. İ.
International Conference on Applied Analysis and Mathematical Modelling (ICAAMM-2017), İstanbul, Turkey, 3 -
07 July 2017

IV. **On generators of Peiffer ideal of a pre-R-algebroid in a precrossed module and applications**
AVCIOĞLU O., AKÇA İ. İ.
INTERNATIONAL CONFERENCE ON MATHEMATICS AND ENGINEERING (ICOME-2017), İstanbul, Turkey, 10 - 12
May 2017

V.   **Homotopies of Crossed Complex Morphisms of R-algebroids**
AVCIOĞLU O., AKÇA İ. İ.

INTERNATIONAL CONFERENCE ON MATHEMATICS AND ENGINEERING (ICOME-2017), İstanbul, Turkey, 10 - 12 May 2017

VI.   **Coproduct Object in the Category of Crossed Modules of Racks**
GÜLSÜN AKAY H., AKÇA İ. İ.
International Conference on Mathematics and Mathematics Education (ICMME-2017), 11 - 13 May 2017

VII. **Coproduct of Crossed Modules of R-Algebroids**
AVCIOĞLU O., AKÇA İ. İ.
2. International Conference on Advences in Natural and Applied Sciences (ICANAS-2017), Antalya, Turkey, 18 - 21 April 2017

VIII. **Pullback cat-1 Racks**
GÜLSÜN AKAY H., AKÇA İ. İ.
International Congress on Fundamental and Applied Sciences (ICFAS 2016), İstanbul, Turkey, 22 - 26 August 2016

IX.   **Some Categorical Constructions of Crossed Modules of Racks**
GÜLSÜN AKAY H., AKÇA İ. İ.
International Conference on Quantum Science and Applications (ICQSA-2016), Eskişehir, Turkey, 25 - 27 May 2016

X.   **Homotopy of Lie 2-Crossed Module Maps**
SİDAL Y., AKÇA İ. İ.
International Conference on Quantum Science and Applications (ICQSA-2016), Eskişehir, Turkey, 25 - 27 May 2016

XI.   **Homotopy of Lie Crossed Module Maps**
AKÇA İ. İ., SİDAL Y.
International Conference on Mathematics and Mathematics Education (ICMME-2016), 12 - 14 May 2016

XII. **The Categorical Properties of Racks**
AKÇA İ. İ., GÜLSÜN AKAY H.
International Conference on Mathematics and Mathematics Education (ICMEE-2016), 12 - 14 May 2016

XIII. **From simplicial homotopy to crossed module homotopy**
EMİR K., AKÇA İ. İ.
International Congress in Honour of Professor Ravi P. Agarwal, Turkey, 23 June 2014

Supported Projects

AKÇA İ. İ., Project Supported by Higher Education Institutions, R-Cebiroid Çaprazlanmış Modülleri Üzerine, 2018 - Continues

AKÇA İ. İ., Project Supported by Higher Education Institutions, Lie Cebir 2-Crossed Modül Morfizmlerinin Noktasal Homotopisi, 2016 - 2018

Metrics

Publication: 35
Citation (WoS): 7
Citation (Scopus): 21
H-Index (WoS): 2
H-Index (Scopus): 3

Non Academic Experience

Eskişehir Osmangazi Üniversitesi