

## **Prof. MUSTAFA KORKMAZ**

### **Personal Information**

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### **Education Information**

Doctorate, Michigan State University, Matematik Bölümü, United States Of America 1993 - 1996

Undergraduate, Inonu University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 1981 - 1985

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, Complex of Curves and Mapping Class Groups, Michigan State University, Matematik Bölümü, 1996

### **Research Areas**

Natural Sciences

### **Academic Titles / Tasks**

Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2006 - Continues  
Associate Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2001 - 2006

Assistant Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 1997 - 2001

Research Assistant, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 1996 - 1997

Research Assistant, Cumhuriyet Üniversitesi, Fen Fakültesi, Matematik Bölümü, 1988 - 1989

### **Academic and Administrative Experience**

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2011 - 2017

### **Advising Theses**

KORKMAZ M., Generalized chillingworth classes on subsurface torelli groups, Doctorate, H.ÜNLÜ(Student), 2018  
 KORKMAZ M., Exotic 4-manifolds and hyperelliptic Lefschetz fibrations, Doctorate, T.ALTUNÖZ(Student), 2018  
 KORKMAZ M., The slope inequality for lefschetz fibrations, Doctorate, A.ÇENGEL(Student), 2017  
 KORKMAZ M., Finite rigid sets in curve complexes of non-orientable surfaces, Doctorate, S.ILBIRA(Student), 2017  
 KORKMAZ M., Legendrian knots and open book decompositions, Doctorate, S.ÇELİK(Student), 2009  
 KORKMAZ M., Open book decompositions of links of quotient surface singularities, Doctorate, E.YILMAZ(Student), 2009  
 KORKMAZ M., Automorphisms of complexes of curves on odd genus nonorientable surfaces, Doctorate, F.Atalan(Student), 2005  
 KORKMAZ M., Automorphisms of complexes of curves on odd genus nonorientable surface, Doctorate, F.ATALAN(Student), 2005  
 KORKMAZ M., Real-analytic diffeomorphisms of the circle and mapping class groups, Postgraduate, İ.SAVAŞ(Student), 2000

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **The mapping class group is generated by two commutators**  
 Baykur R. I. , KORKMAZ M.  
 JOURNAL OF ALGEBRA, vol.574, pp.278-291, 2021 (Journal Indexed in SCI)
- II. **Low-slope Lefschetz fibrations**  
 Çengel A., KORKMAZ M.  
 Journal of Topology and Analysis, 2021 (Journal Indexed in SCI Expanded)
- III. **Finite rigid sets in curve complexes of nonorientable surfaces**  
 Ilbira S., Korkmaz M.  
 GEOMETRIAE DEDICATA, vol.206, pp.83-103, 2020 (Journal Indexed in SCI)
- IV. **Mapping class group is generated by three involutions**  
 Korkmaz M.  
 MATHEMATICAL RESEARCH LETTERS, vol.27, pp.1095-1108, 2020 (Journal Indexed in SCI)
- V. **Small Lefschetz fibrations and exotic 4-manifolds**  
 Baykur R. I. , KORKMAZ M.  
 MATHEMATISCHE ANNALEN, vol.367, pp.1333-1361, 2017 (Journal Indexed in SCI)
- VI. **Arbitrarily Long Factorizations in Mapping Class Groups**  
 DALYAN E., KORKMAZ M., PAMUK M.  
 INTERNATIONAL MATHEMATICS RESEARCH NOTICES, no.19, pp.9400-9414, 2015 (Journal Indexed in SCI)
- VII. **Automorphisms of curve complexes on nonorientable surfaces**  
 Atalan F., KORKMAZ M.  
 GROUPS GEOMETRY AND DYNAMICS, vol.8, no.1, pp.39-68, 2014 (Journal Indexed in SCI)
- VIII. **SECTIONS OF SURFACE BUNDLES AND LEFSCHETZ FIBRATIONS**  
 Baykur R. I. , KORKMAZ M., Monden N.  
 TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.365, no.11, pp.5999-6016, 2013 (Journal Indexed in SCI)
- IX. **ON THE IDEAL TRIANGULATION GRAPH OF A PUNCTURED SURFACE**  
 KORKMAZ M., Papadopoulos A.  
 ANNALES DE L INSTITUT FOURIER, vol.62, no.4, pp.1367-1382, 2012 (Journal Indexed in SCI)
- X. **Minimal generating sets for the mapping class group of a surface**  
 KORKMAZ M.  
 HANDBOOK OF TEICHMULLER THEORY, VOL III, vol.17, pp.441-463, 2012 (Journal Indexed in SCI)
- XI. **On the arc and curve complex of a surface**  
 KORKMAZ M., Papadopoulos A.  
 MATHEMATICAL PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY, vol.148, pp.473-483, 2010 (Journal Indexed in SCI)

- XII. **Number of pseudo-Anosov elements in the mapping class group of a four-holed sphere**  
Atalan F., KORKMAZ M.  
TURKISH JOURNAL OF MATHEMATICS, vol.34, no.4, pp.585-592, 2010 (Journal Indexed in SCI)
- XIII. **Lefschetz fibrations on 4-manifolds**  
KORKMAZ M., Stipsicz A. I.  
HANDBOOK OF TEICHMULLER THEORY, VOL II, vol.13, pp.271-296, 2009 (Journal Indexed in SCI)
- XIV. **Lefschetz Fibrations and an Invariant of Finitely Presented Groups**  
KORKMAZ M.  
INTERNATIONAL MATHEMATICS RESEARCH NOTICES, no.9, pp.1547-1572, 2009 (Journal Indexed in SCI)
- XV. **On sections of elliptic fibrations**  
KORKMAZ M., Ozbagci B.  
MICHIGAN MATHEMATICAL JOURNAL, vol.56, no.1, pp.77-87, 2008 (Journal Indexed in SCI)
- XVI. **Automorphisms of the Hatcher-Thurston complex**  
Irmak E., KORKMAZ M.  
ISRAEL JOURNAL OF MATHEMATICS, vol.162, no.1, pp.183-196, 2007 (Journal Indexed in SCI)
- XVII. **Homomorphisms from mapping class groups**  
Harvey W., Korkmaz M.  
BULLETIN OF THE LONDON MATHEMATICAL SOCIETY, vol.37, pp.275-284, 2005 (Journal Indexed in SCI)
- XVIII. **On stable torsion length of a Dehn twist**  
Korkmaz M.  
MATHEMATICAL RESEARCH LETTERS, vol.12, pp.335-339, 2005 (Journal Indexed in SCI)
- XIX. **Generating the surface mapping class group by two elements**  
Korkmaz M.  
TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.357, no.8, pp.3299-3310, 2005 (Journal Indexed in SCI)
- XX. **Stable commutator length of a Dehn twist**  
Korkmaz M.  
MICHIGAN MATHEMATICAL JOURNAL, vol.52, no.1, pp.23-31, 2004 (Journal Indexed in SCI)
- XXI. **The second homology groups of mapping class groups of orientable surfaces**  
Korkmaz M., Stipsicz A.  
MATHEMATICAL PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY, vol.134, pp.479-489, 2003 (Journal Indexed in SCI)
- XXII. **Commutators, Lefschetz fibrations and the signatures of surface bundles**  
Endo H., Korkmaz M., Kotschick D., Ozbagci B., Stipsicz A.  
TOPOLOGY, vol.41, no.5, pp.961-977, 2002 (Journal Indexed in SCI)
- XXIII. **Mapping class groups of nonorientable surfaces**  
Korkmaz M.  
GEOMETRIAE DEDICATA, vol.89, no.1, pp.109-133, 2002 (Journal Indexed in SCI)
- XXIV. **On endomorphisms of surface mapping class groups**  
Korkmaz M.  
TOPOLOGY, vol.40, no.3, pp.463-467, 2001 (Journal Indexed in SCI)
- XXV. **Noncomplex smooth 4-manifolds with Lefschetz fibrations**  
Korkmaz M.  
INTERNATIONAL MATHEMATICS RESEARCH NOTICES, no.3, pp.115-128, 2001 (Journal Indexed in SCI)
- XXVI. **Minimal number of singular fibers in a Lefschetz fibration**  
Korkmaz M., Ozbagci B.  
PROCEEDINGS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.129, no.5, pp.1545-1549, 2001 (Journal Indexed in SCI)
- XXVII. **Surface mapping class groups are ultrahopfian**  
Korkmaz M., McCarthy J.  
MATHEMATICAL PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY, vol.129, pp.35-53, 2000 (Journal Indexed in SCI)

Indexed in SCI)

- XXVIII. **Automorphisms of complexes of curves on punctured spheres and on punctured tori**  
KORKMAZ M.  
TOPOLOGY AND ITS APPLICATIONS, vol.95, no.2, pp.85-111, 1999 (Journal Indexed in SCI)
- XXIX. **First homology group of mapping class groups of nonorientable surfaces**  
KORKMAZ M.  
MATHEMATICAL PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY, vol.123, pp.487-499, 1998  
(Journal Indexed in SCI)

## **Books & Book Chapters**

- I. **Minimal generating sets for the mapping class group of a surface**  
KORKMAZ M.  
in: Handbook of Teichmüller theory Volume III, Athanase Papadopoulos, Editor, European Mathematical Society, Zürich, pp.441-463, 2012
- II. **Lefschetz Fibrations on 4-manifolds**  
KORKMAZ M., Stipsicz A.  
in: Handbook of Teichmüller Theory II, Papadopoulos Athanase, Editor, European Mathematical Society, Zürich, pp.271-296, 2009
- III. **Problems on homomorphisms of mapping class groups**  
KORKMAZ M.  
in: Problems on mapping class groups and related topics, Farb Benson, Editor, American Mathematical Society, Providence, pp.81-89, 2006

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

- I. **Commutator and stable commutator lengths in groups**  
Korkmaz M.  
Journées Mathématiques Régionales: Third Romanian-Turkish Mathematics Colloquium, Constanta, Romania, 18 - 22 September 2019, pp.4
- II. **Yüzeyleerin Gönderim Sınıfları Grubunun Üreteçleri**  
Korkmaz M.  
32. Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 September 2019, pp.9
- III. **Mapping class groups presentations representations and relations with symplectic manifolds**  
KORKMAZ M.  
Mapping class groups, 3- and 4-manifolds, Cluj, Romania, 27 July - 01 August 2015
- IV. **Arbitrarily long factorizations in mapping class groups**  
KORKMAZ M.  
49th Spring Topology and Dynamics Conference 2015, Bowling Green, United States Of America, 14 - 16 May 2015

## **Memberships / Tasks in Scientific Organizations**

American Mathematical Society, Member, 1993 - Continues, United States Of America  
Türk Matematik Derneği, Member, 1988 - Continues, Turkey

## **Scientific Refereeing**

COMMUNICATIONS IN ANALYSIS AND GEOMETRY, SCI Journal, February 2019

## Citations

Total Citations (WOS):456

h-index (WOS):13