

Prof. HAYRULLAH AYIK

Personal Information

Office Phone: [+90 322 338 6084](tel:+903223386084) Extension: 2469

Email: hayik@cu.edu.tr

Web: <https://avesis.cu.edu.tr/hayik>

Address: Çukurova Üniversitesi Fen Edebiyat Fakültesi Matematik Bölümü Sarıçam/ADANA

Education Information

Doctorate, University of St. Andrews, Mathematical Institute, United Kingdom 1995 - 1998

Under Graduate, Cukurova University, Fen Edebiyat Fakültesi, Matematik, Turkey 1989 - 1993

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Presentations and Efficiency of Semigroups, University of St. Andrews, Mathematical Institute, Mathematics, 1998

Research Areas

Mathematics, Group Theory and Generalizations, Natural Sciences

Academic Titles / Tasks

Professor, Cukurova University, Fen Edebiyat Fakültesi , Matematik, 2011 - Continues

Professor, Adiyaman University, Fen Edebiyat Fakültesi , Matematik, 2010 - 2011

Associate Professor, Cukurova University, Fen Edebiyat Fakültesi , Matematik, 2005 - 2010

Assistant Professor, Cukurova University, Fen Edebiyat Fakültesi , Matematik, 1998 - 2005

Research Assistant, Cukurova University, Fen Edebiyat Fakültesi , Matematik, 1993 - 1998

Professional Experience

Head of Department, Cukurova University, 2011 - Continues

Head of Department, Cukurova University, 2013 - 2016

Board Member, Cukurova University, 2007 - 2010

Deputy Head of Department, Cukurova University, 2007 - 2008

Deputy Head of Department, Cukurova University, 2004 - 2007

Advising Theses

AYIK H., BAZI DÖNÜŞÜM YARIGRUPLARININ DOĞURAYLARI ve RANKLARI, Doctorate, L.Bugay(Student), 2015

AYIK H., Bazı dönüşüm yarıgruplarının doğurayları ve rankı, Doctorate, F.Çınar(Student), 2011

AYIK H., Yarıgrupların Bruck-Reilly Genişlemelerinin Sonlu Takdim edilebilirliği, Post Graduate, L.Bugay(Student), 2010

AYIK H., Sonlu Sıra Koruyan Dönüşümlerin Orbitleri, Doctorate, M.Koç(Student), 2010
AYIK H., Bazı Yarigrup Aileleri ve Yapıları İçin Sonluluk Koşulları ve Etkinlik, Doctorate, B.Çalışkan(Student), 2008
AYIK H., Bazı Yarigrup Yapılarının Sonlu Takdim Edilebilirliği, Post Graduate, K.Toker(Student), 2008
AYIK H., Transformasyon Yarigruplarının Doğurayları ve Rankı, Post Graduate, M.Koç(Student), 2005
AYIK H., Otomatik Gruplar ve Yarigruplar, Post Graduate, H.İbrahim(Student), 2004

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

- **Combinatorial Results for Semigroups of Order-Preserving and A-Decreasing Finite Transformations**
BUGAY L., YAĞCI M., AYIK H.
BULLETIN OF THE MALAYSIAN MATHEMATICAL SCIENCES SOCIETY, vol.42, pp.921-932, 2019 (Journal Indexed in SCI)
- **Relative ranks of some partial transformation semigroups**
Yigit E., AYIK G., AYIK H.
TURKISH JOURNAL OF MATHEMATICS, vol.43, pp.2218-2225, 2019 (Journal Indexed in SCI)
- **The ranks of certain semigroups of partial isometries**
Bugay L., YAĞCI M., AYIK H.
SEMIGROUP FORUM, vol.97, pp.214-222, 2018 (Journal Indexed in SCI)
- **Generating sets of certain finite subsemigroups of monotone partial bijections**
Bugay L., AYIK H.
TURKISH JOURNAL OF MATHEMATICS, vol.42, pp.2270-2278, 2018 (Journal Indexed in SCI)
- **On the rank of transformation semigroup $T-(n, T-m)$**
Toker K., AYIK H.
TURKISH JOURNAL OF MATHEMATICS, vol.42, pp.1970-1977, 2018 (Journal Indexed in SCI)
- **Minimal relative generating sets of some partial transformation semigroups**
YİĞİT E., AYIK G., AYIK H.
Communications in Algebra, vol.45, pp.1239-1245, 2017 (Journal Indexed in SCI)
- **Minimal relative generating sets of some partial transformation semigroups**
YİĞİT E., AYIK G., AYIK H.
COMMUNICATIONS IN ALGEBRA, vol.45, pp.1239-1245, 2016 (Journal Indexed in SCI)
- **GENERATING SETS OF FINITE TRANSFORMATION SEMIGROUPS $PK(n, r)$ AND $K(n, r)$**
AYIK H., BUGAY L.
COMMUNICATIONS IN ALGEBRA, vol.43, pp.412-422, 2015 (Journal Indexed in SCI)
- **On the second homology of the Schutzenberger product of monoids**
YAĞCI M., BUGAY L., AYIK H.
TURKISH JOURNAL OF MATHEMATICS, vol.39, pp.763-772, 2015 (Journal Indexed in SCI)
- **GENERATING SETS OF STRICTLY ORDER-PRESERVING TRANSFORMATION SEMIGROUPS ON A FINITE SET**
AYIK H., BUGAY L.
BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.51, pp.1055-1062, 2014 (Journal Indexed in SCI)
- **Generating sets of finite singular transformation semigroups**
AYIK G., AYIK H., BUGAY L., KELEKCI O.
SEMIGROUP FORUM, vol.86, pp.59-66, 2013 (Journal Indexed in SCI)
- **Rank properties of the semigroup of singular transformations on a finite set**
AYIK G., AYIK H., Uenlue Y., HOWIE J. M.
COMMUNICATIONS IN ALGEBRA, vol.36, pp.2581-2587, 2008 (Journal Indexed in SCI)
- **On semigroup presentations and adian graphs**
AYIK G., AYIK H., UNLU Y.
DISCRETE MATHEMATICS, vol.308, pp.2288-2291, 2008 (Journal Indexed in SCI)
- **On the efficiency of the direct products of monogenic monoids**
Ayik H., CAMPBELL C. M., O'CONNOR J. J.
ALGEBRA COLLOQUIUM, vol.14, pp.279-284, 2007 (Journal Indexed in SCI)
- **On factorisations and generators in transformation semigroups**

AYIK G., Ayik H., HOWIE J.

SEMIGROUP FORUM, vol.70, pp.225-237, 2005 (Journal Indexed in SCI)

- **Minimal presentations and embedding into inefficient semigroups**

Ayik H., MINISKER M., VATANSEVER B.

ALGEBRA COLLOQUIUM, vol.12, pp.59-65, 2005 (Journal Indexed in SCI)

- **The structure of elements in finite full transformation semigroups**

AYIK G., Ayik H., UNLU Y., HOWIE J.

BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY, vol.71, pp.69-74, 2005 (Journal Indexed in SCI)

- **On finiteness conditions for Rees matrix semigroups**

Ayik H.

CZECHOSLOVAK MATHEMATICAL JOURNAL, vol.55, pp.455-463, 2005 (Journal Indexed in SCI)

- **Presentations for S and S/p from a given presentation for p**

AYIK G., Ayik H., UNLU Y.

SEMIGROUP FORUM, vol.70, pp.146-149, 2005 (Journal Indexed in SCI)

- **On semigroup presentations and efficiency**

Ayik H., KUYUCU F., VATANSEVER B.

SEMIGROUP FORUM, vol.65, pp.329-335, 2002 (Journal Indexed in SCI)

- **Minimal presentations and efficiency of semigroups**

Ayik H., CAMPBELL C., O'CONNOR J., RUSKUC N.

SEMIGROUP FORUM, vol.60, pp.231-242, 2000 (Journal Indexed in SCI)

- **Generators and relations of Rees matrix semigroups**

Ayik H., RUSKUC N.

PROCEEDINGS OF THE EDINBURGH MATHEMATICAL SOCIETY, vol.42, pp.481-495, 1999 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Generating Sets in Some Semigroups of Order-Preserving Transformations on a Finite Set**

AYIK H., BUGAY L.

SOUTHEAST ASIAN BULLETIN OF MATHEMATICS, vol.38, pp.163-172, 2014 (Refereed Journals of Other Institutions)

- **Presentations and word problems for strong semilattices of semigroups**

AYIK G., AYIK H., UNLU Y.

Algebra and Discrete Mathematics, vol.4, pp.28-35, 2005 (Refereed Journals of Other Institutions)

- **The Semigroup Efficiency of Groups and Monoids**

AYIK H., Ruskuc N., Campbell C. M., O'Connor J. J.

Proceedings of the Royal Irish Academy A, vol.100, pp.171-176, 2000 (Refereed Journals of Other Institutions)

- **On the Efficiency of Finite Simple Semigroups**

AYIK H., CAMPBELL C. M., O'CONNOR J., RUSKUC N.

TURKISH JOURNAL OF MATHEMATICS, vol.24, pp.129-146, 2000 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **Bazı Sonlu Sıra-Koruyan Dönüşüm Yarışmalarının Doğuray Kümeleri**

BUGAY L., AYIK H.

XXVI. Ulusal Matematik Sempozyumu, Diyarbakır, Turkey, 4 - 07 September 2013, pp.12

- **Sonlu Tekil Dönüşüm Yarışmalarının Doğuray Kümeleri**

BUGAY L., AYIK G., AYIK H., KELEKÇİ O.

XXV. Ulusal Matematik Sempozyumu, Niğde, Turkey, 5 - 07 September 2012, pp.12

- **(m,r) -rank of finite full transformation semigroups**

AYIK G., AYIK H., HOWIE J. M., UNLU Y.

Antalya Algebra Days VIII, Antalya, Turkey, 17 - 21 May 2006, pp.52

- **On factorisations and generators in transformation semigroups**
AYIK G., AYIK H., HOWIE J. M.
Antalya Algebra Days VII, Antalya, Turkey, 18 - 22 August 2005, pp.1
- **On factorisations and generators in transformation semigroups**
AYIK G., AYIK H., HOWIE J. M.
Antalya Algebra Days VII, Antalya, Turkey, 18 - 22 May 2005, pp.45
- **The Structure of Elements in Finite Full Transformation Semigroups**
AYIK H., AYIK G., HOWIE J. M. , UNLU Y.
Antalya Algebra Days VII, Antalya, Turkey, 18 - 22 May 2005, pp.32
- **Bazı Yarigrup Ailelerinin Sonlu Takdimedilebilirliği**
AYIK G., AYIK H., UNLU Y.
XVII. Ulusal Matematik Sempozyumu, Bolu, Turkey, 23 - 26 August 2004, pp.15
- **On Semigroup Presentations**
AYIK H.
Antalya Algebra Days III,, Antalya, Turkey, 28 May - 01 June 2003, pp.15
- **The Semigroup Efficiency of Direct Products of Groups**
Campbell C. M. , AYIK H., O'Connor J. J. , Ruskuc N.
Proc. Internat. Conf. Semigroups, Praga, Portugal, 18 - 23 June 1999, pp.19-25
- **Generators and Relations of Rees Matrix Semigroups**
AYIK H., Ruskuc N.
International Conference On Algorithmic Problems In Groups And Semigroups, Nebraska, United States Of America, 11 - 15 May 1999, pp.10
- **On the Efficiency of Wreath Products of Groups**
Campbell C. M. , AYIK H., O'Connor J. J. , Ruskuc N.
Groups Korea 98, Pusan, South Korea, 10 - 16 August 1998, pp.39-51
- **The Semigroup Efficiency of Groups**
CAMPBELL C. M. , AYIK H., O'Connor J., RUSKUC N.
International Conference On Algorithmic Problems In Groups And Semigroups, Nebraska, United States Of America, 10 - 16 August 1998, pp.45
- **Efficiency of Semigroups**
AYIK H.
Conference On Semigroups And Applications, Edinburg, Scotland, 2 - 09 July 1997, pp.68

Supported Projects

BUGAY L., AYIK H., Project Supported by Higher Education Institutions, Generating sets of finite transformation semigroups PKnr and Knr, 2017 - 2018

Invited Congress and Symposium Activities

XXVI. Ulusal Matematik Sempozyumu, Attendee, Diyarbakır, Turkey, 2013
 XXV. Ulusal Matematik Sempozyumu, Attendee, Niğde, Turkey, 2012
 Antalya Algebra Days VIII, Attendee, Antalya, Turkey, 2006
 Antalya Algebra Days VII, Attendee, Turkey, 2005
 XVII. Ulusal Matematik Sempozyumu, Attendee, Bolu, Turkey, 2004
 Seminar, Attendee, Edinburgh, Scotland, 2003
 Antalya Algebra Days III, Attendee, Antalya, Turkey, 2003
 International Conference on Semigroups, Attendee, Braga, Portugal, 1999
 International Conference On Algorithmic Problems In Groups And Semigroups, Attendee, Nebraska, United States Of America, 1999
 Groups Korea 98, Attendee, Pusan, South Korea, 1998
 International Conference On Algorithmic Problems In Groups And Semigroups, Attendee, Nebraska, United States Of

America, 1998

Conference On Semigroups And Applications, Attendee, Edinburgh, Scotland, 1997

Citations

Total Citations (WOS):90

h-index (WOS):6

Scholarships

TÜBİTAK BAYG Matematik Çalışma Grubu, TÜBİTAK, 2003 - Continues

University of St Andrews Doktora Bursu, YOK, 1995 - Continues