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Publons / Web Of Science ResearcherID: C-4041-2016

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Education Information

Doctorate, Hacettepe University, Fen Fakültesi, Matematik Bölümü, Turkey 1997 - 1999

Postgraduate, Bolu Abant İzzet Baysal University, Faculty Of Arts And Sciences, Turkey 1994 - 1996

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1988 - 1994

Dissertations

Doctorate, Tıkız Pürüzsüz Topolojik Uzaylar Üzerine, Hacettepe University, Department of Roman Law, Matematik Anabilim Dalı, 1999

Postgraduate, Axiomatic Theory of Intuitionistic Fuzzy Sets , Bolu Abant İzzet Baysal University, Fen Bilimleri Enstitüsü, Matematik Anabilim Dalı, 1996

Research Areas

Mathematics, General Topology, Mathematical Logic and Foundations, Natural Sciences

Academic Titles / Tasks

Professor, Akdeniz University, Faculty Of Science, Department Of Mathematics, 2006 - Continues

Associate Professor, Akdeniz University, Faculty Of Science, Department Of Mathematics, 2001 - 2006

Lecturer, Akdeniz University, Faculty Of Science, Department Of Mathematics, 1998 - 2001

Advising Theses

DEMİRCİ M., Olabilirlik ölçümleri, Postgraduate, G.Soylu(Student), 2001

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Observability in locally vague environments
DEMİRCİ M.

- INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.128, pp.20-31, 2021 (Peer-Reviewed Journal)
- II. **On the representations of L-equivalence relations on L-fuzzy sets with applications to locally vague environments**
DEMİRÇİ M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.49, no.3, pp.334-354, 2020 (Peer-Reviewed Journal)
- III. **L-equivalence relations on L-fuzzy sets, L-partitions of L-fuzzy sets and their one-to-one connections**
DEMİRÇİ M.
INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.111, pp.21-34, 2019 (Peer-Reviewed Journal)
- IV. **Stratified categorical fixed-basis fuzzy topological spaces and their duality**
DEMİRÇİ M.
FUZZY SETS AND SYSTEMS, vol.267, pp.1-17, 2015 (Peer-Reviewed Journal)
- V. **Fundamental duality of abstract categories and its applications**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.256, pp.73-94, 2014 (Peer-Reviewed Journal)
- VI. **$(Z(1), Z(2))$ -Complete Partially Ordered Sets and Their Representations by Q-Spaces**
Demirci M.
APPLIED CATEGORICAL STRUCTURES, vol.21, no.6, pp.703-723, 2013 (Peer-Reviewed Journal)
- VII. **Category-theoretic fuzzy topological spaces and their dualities**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.227, pp.1-24, 2013 (Peer-Reviewed Journal)
- VIII. **The order-theoretic duality and relations between partial metrics and local equalities**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.192, pp.45-57, 2012 (Peer-Reviewed Journal)
- IX. **Pointed semi-quantales and lattice-valued topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.161, no.9, pp.1224-1241, 2010 (Peer-Reviewed Journal)
- X. **Strict fuzzy orderings with a given context of similarity**
Bodenhofer U., DEMİRÇİ M.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.16, no.2, pp.147-178, 2008 (Peer-Reviewed Journal)
- XI. **Textures and C-spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.158, no.11, pp.1237-1245, 2007 (Peer-Reviewed Journal)
- XII. **An introduction to vague complemented ordered sets**
Demirci M., Eken Z.
INFORMATION SCIENCES, vol.177, no.1, pp.150-160, 2007 (Peer-Reviewed Journal)
- XIII. **The generalized associative law in vague groups and its applications - II**
Demirci M.
INFORMATION SCIENCES, vol.176, no.11, pp.1488-1530, 2006 (Peer-Reviewed Journal)
- XIV. **The generalized associative law in vague groups and its applications - I**
DEMİRÇİ M.
INFORMATION SCIENCES, vol.176, no.7, pp.900-936, 2006 (Peer-Reviewed Journal)
- XV. **Aggregation operators on partially ordered sets and their categorical foundations**
Demirci M.
KYBERNETIKA, vol.42, no.3, pp.261-277, 2006 (Peer-Reviewed Journal)
- XVI. **Non-existence of non-trivial L-algebras containing field structure in the sense of Belohlavek and an open question**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.157, no.2, pp.202-204, 2006 (Peer-Reviewed Journal)
- XVII. **Products of elements in vague semigroups and their implementations in vague arithmetic**

- Demirci M.
FUZZY SETS AND SYSTEMS, vol.156, no.1, pp.93-123, 2005 (Peer-Reviewed Journal)
- XVIII. A theory of vague lattices based on many-valued equivalence relations - I: general representation results**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.151, no.3, pp.437-472, 2005 (Peer-Reviewed Journal)
- XIX. A theory of vague lattices based on many-valued equivalence relations - II: complete lattices**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.151, no.3, pp.473-489, 2005 (Peer-Reviewed Journal)
- XX. The generalized associative law in smooth groups**
Demirci M.
INFORMATION SCIENCES, vol.169, no.3-4, pp.227-244, 2005 (Peer-Reviewed Journal)
- XXI. Fuzzy groups, fuzzy functions and fuzzy equivalence relations**
Demirci M., Recasens J.
FUZZY SETS AND SYSTEMS, vol.144, no.3, pp.441-458, 2004 (Peer-Reviewed Journal)
- XXII. Topological properties of the class of generators of an indistinguishability operator**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.143, no.3, pp.413-426, 2004 (Peer-Reviewed Journal)
- XXIII. Indistinguishability operators in measurement theory, Part II: Construction of indistinguishability operators based on probability distributions**
Demirci M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.32, no.5, pp.431-458, 2003 (Peer-Reviewed Journal)
- XXIV. Indistinguishability operators in measurement theory, Part I: Conversions of indistinguishability operators with respect to scales**
Demirci M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.32, no.5, pp.415-430, 2003 (Peer-Reviewed Journal)
- XXV. Genuine sets, various kinds of fuzzy sets and fuzzy rough sets**
Demirci M.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.11, no.4, pp.467-494, 2003 (Peer-Reviewed Journal)
- XXVI. Representations of the extensions of many-valued equivalence relations**
Demirci M.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.11, no.3, pp.319-341, 2003 (Peer-Reviewed Journal)
- XXVII. On many-valued partitions and many-valued equivalence relations**
Demirci M.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.11, no.2, pp.235-253, 2003 (Peer-Reviewed Journal)
- XXVIII. Foundations of fuzzy functions and vague algebra based on many-valued equivalence relations, Part III: Constructions of vague algebraic notions and vague arithmetic operations**
Demirci M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.32, no.2, pp.177-201, 2003 (Peer-Reviewed Journal)
- XXIX. Foundations of fuzzy functions and vague algebra based on many-valued equivalence relations, Part I: Fuzzy functions and their applications**
Demirci M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.32, no.2, pp.123-155, 2003 (Peer-Reviewed Journal)
- XXX. Foundations of fuzzy functions and vague algebra based on many-valued equivalence relations, Part II: Vague algebraic notions**
Demirci M.
INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.32, no.2, pp.157-175, 2003 (Peer-Reviewed Journal)
- XXXI. Constructions of fuzzy functions based on fuzzy equalities**

- Demirci M.
SOFT COMPUTING, vol.7, no.3, pp.199-207, 2003 (Peer-Reviewed Journal)
- XXXII. **Arithmetic of fuzzy quantities based on vague arithmetic operations**
Demirci M.
FUZZY SETS AND SYSTEMS - IFSA 2003, PROCEEDINGS, vol.2715, pp.159-166, 2003 (Peer-Reviewed Journal)
- XXXIII. **Fundamentals of M-vague algebra and M-vague arithmetic operations**
Demirci M.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.10, no.1, pp.25-75, 2002 (Peer-Reviewed Journal)
- XXXIV. **Gradation of being fuzzy function**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.119, no.3, pp.383-392, 2001 (Peer-Reviewed Journal)
- XXXV. **An invitation to topological structures on first order genuine sets**
Coker D., Demirci M.
FUZZY SETS AND SYSTEMS, vol.119, no.3, pp.521-527, 2001 (Peer-Reviewed Journal)
- XXXVI. **Smooth subgroups and smooth homomorphisms**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.117, no.3, pp.439-446, 2001 (Peer-Reviewed Journal)
- XXXVII. **Smooth groups**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.117, no.3, pp.431-437, 2001 (Peer-Reviewed Journal)
- XXXVIII. **Fuzzy functions and their applications**
Demirci M.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.252, no.1, pp.495-517, 2000 (Peer-Reviewed Journal)
- XXXIX. **Axiomatic theory of intuitionistic fuzzy sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.110, no.2, pp.253-266, 2000 (Peer-Reviewed Journal)
- XL. **Some notices on genuine sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.110, no.2, pp.275-278, 2000 (Peer-Reviewed Journal)
- XLI. **Fuzzy functions and their fundamental properties**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.106, no.2, pp.239-246, 1999 (Peer-Reviewed Journal)
- XLII. **Genuine sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.105, no.3, pp.377-384, 1999 (Peer-Reviewed Journal)
- XLIII. **Vague groups**
Demirci M.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.230, no.1, pp.142-156, 1999 (Peer-Reviewed Journal)
- XLIV. **Three topological structures of smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.101, no.1, pp.185-190, 1999 (Peer-Reviewed Journal)
- XLV. **Neighborhood structures of smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.92, no.1, pp.123-128, 1997 (Peer-Reviewed Journal)
- XLVI. **On several types of compactness in smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.90, no.1, pp.83-88, 1997 (Peer-Reviewed Journal)
- XLVII. **ON THE AXIOMATIC THEORY OF FUZZY-SETS**

DEMIRCI M., COKER D.

FUZZY SETS AND SYSTEMS, vol.60, no.2, pp.181-198, 1993 (Peer-Reviewed Journal)

Articles Published in Other Journals

- I. **On the Convergence Structure of L-topological Spaces and the Continuity in L-topological spaces**
DEMIRCI M.
New Mathematics and Natural Computation, vol.3, pp.1-25, 2007 (Peer-Reviewed Journal)
- II. **Generalized Set-Theoretic Operations on Genuine Sets**
DEMIRCI M.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.34, pp.1-6, 2005 (Peer-Reviewed Journal)
- III. **Remarks on vague groups**
DEMIRCI M., Çoker D.
Journal of Fuzzy Mathematics, vol.10, pp.657-668, 2002 (Peer-Reviewed Journal)
- IV. **On the compactness in fuzzy topological spaces in Sostak's sense**
Ertürk R., DEMIRCI M.
MATEMATICKI VESNIK, vol.50, pp.75-81, 1998 (Peer-Reviewed Journal)
- V. **An introduction to intuitionistic fuzzy topological spaces in Sostak's sense**
Çoker D., DEMIRCI M.
BUSEFAL, vol.67, pp.67-76, 1996 (Peer-Reviewed Journal)
- VI. **Almost compactness and near compactness in three topological structures of smooth topological spaces**
DEMIRCI M.
Bulletin of Calcutta Mathematical Society, vol.88, pp.79-86, 1996 (Peer-Reviewed Journal)
- VII. **On fuzzy inclusion in the intuitionistic sense**
Çoker D., DEMIRCI M.
Journal of Fuzzy Mathematics, vol.4, no.4, pp.701-714, 1996 (Peer-Reviewed Journal)
- VIII. **On intuitionistic fuzzy points**
Çoker D., DEMIRCI M.
Notes on IFS, vol.1, no.1, pp.79-84, 1995 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **On Two Approaches to Concrete Dualities and Their Relationships**
DEMIRCI M.
Topology, Algebra and Categories in Logic 2017 (TACL 2017), Prag, Czech Republic, 26 - 30 June 2017, pp.1-2
- II. **Applications of Fundamental Categorical Duality Theorem to L-fuzzy Sets and Separated M-valued Sets**
DEMIRCI M.
LINZ2017 - 37th Linz Seminar on Fuzzy Set Theory, Linz, Austria, 7 - 10 February 2017, pp.11-14
- III. **Fuzzy Semi-Quantales, (L,M)-Quasi-Fuzzy Topological Spaces and Their Duality**
DEMIRCI M.
7th International Conference on Fuzzy Computation Theory and Applications (FCTA 2015), Lizbon, Portugal, 12 - 14 November 2015, pp.105-111
- IV. **Heyting duality as an application of fundamental categorical duality theorem**
DEMIRCI M.
LOGIC COLLOQUIUM 2015, Helsinki, Finland, 3 - 08 August 2015, pp.748
- V. **Stone and Priestley Dualities as Applications of Fundamental Categorical Duality Theorem**
DEMIRCI M.

9th Scandinavian Logic Symposium, Tampere, Finland, 25 - 27 August 2014, pp.22

- VI. **Topological Duality of Aggregation Operators**
DEMÍRCÍ M.
International Symposium on Aggregation on Bounded Lattices, Trabzon, Turkey, 16 - 20 June 2014, pp.3-4
- VII. **Aggregation Operators on Bounded Partially Ordered Sets, Aggregative Spaces and Their Duality**
Demirci M.
15th International Conference on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), Montpellier, France, 15 - 19 July 2014, vol.442, pp.457-465
- VIII. **An Extended Fundamental Duality of Partially Ordered Sets and Its Applications**
DEMÍRCÍ M.
Computability in Europe 2013 (CIE2013), Milan, Italy, 1 - 05 July 2013, pp.70-79
- IX. **Applications of Categorical Fixed-basis Fuzzy Topological Spaces to A-valued Spaces**
DEMÍRCÍ M.
8th Conference of the European-Society-for-Fuzzy-Logic-and-Technology (EUSFLAT), Milan, Italy, 11 - 13 September 2013, vol.32, pp.9-16
- X. **A Stone-type adjunction for fixed-basis fuzzy topological spaces in abstract categories and its applications**
DEMÍRCÍ M.
33rd Linz Seminar on Fuzzy Set Theory, Linz, Austria, 14 - 18 February 2012, pp.13-15
- XI. **On augmented posets and (Z_1, Z_2) -complete posets**
DEMÍRCÍ M.
TACL 2011, the Fifth International Conference on Topology, Algebra and Categories in Logic, Marsilya, France, 26 - 30 July 2011, pp.115
- XII. **On a Subset System-based Generalization of Topology**
DEMÍRCÍ M.
24th Summer Conference on Topology and Its Applications, Brno, Czech Republic, 14 - 17 July 2009, pp.4
- XIII. **An Introduction to (Z_1, Z_2) -complete posets**
DEMÍRCÍ M.
4th International Conference on Topology, Algebra and Categories in Logic, TACL'09, Amsterdam, Netherlands, 7 - 11 July 2009, pp.1-2
- XIV. **Subset systems in lattice-valued mathematics**
DEMÍRCÍ M.
30th Linz Seminar on Fuzzy Set Theory, Linz, Austria, 3 - 07 February 2009, pp.21-23
- XV. **Pointed semi-quantales and generalized lattice-valued quasi topological spaces**
DEMÍRCÍ M.
29th Linz Seminar on Fuzzy Set Theory, Linz, Austria, 12 - 16 February 2008, pp.23-24
- XVI. **Spatial semi-quantales and T_0 generalized lattice-valued topological spaces**
DEMÍRCÍ M.
22nd. Summer Conference on Topology and its Applications, Castello, Spain, 24 - 27 July 2007, pp.43
- XVII. **TOPOLOGICAL CHARACTERIZATION OF LINEARLY ORDERED COMPLETE RESIDUATED LATTICES**
DEMÍRCÍ M.
Tenth Prague Topological Symposium, Prague, Czech Republic, 13 - 19 August 2006, pp.104-110
- XVIII. **The Vague Sum and Product of a Finite Number of Real Numbers in Vague Arithmetic**
DEMÍRCÍ M.
Fourth Conference of the European Society for Fuzzy Logic and Technology and 11 Recontres Francophones sur la Logique Floue et ses Applications, EUSFLAT-LFA 2005 Joint Conference, Barselona, Spain, 7 - 09 September 2005, pp.745-750
- XIX. **Strict Fuzzy Orderings in a Similarity-Based Setting**
Bodenhofer U., DEMÍRCÍ M.
Fourth Conference of the European Society for Fuzzy Logic and Technology and 11 Recontres Francophones sur la Logique Floue et ses Applications, EUSFLAT-LFA 2005 Joint Conference, Barselona, Spain, 7 - 09 September

2005, pp.297-302

- XX. **ORDER-THEORETIC AND CATEGORICAL FOUNDATIONS OF AGGREGATION OPERATORS**
DEMÍRCÍ M.
INTERNATIONAL SUMMER SCHOOL ON AGGREGATION OPERATORS AND THEIR APPLICATIONS, Lugano, Switzerland, 10 - 15 July 2005, pp.41-45
- XXI. **Vague ordered fields: towards an axiomatic theory of vague real line**
DEMÍRCÍ M.
25th Linz Seminar on Fuzzy Set Theory, Linz, Austria, 3 - 07 February 2004, pp.37-38
- XXII. **An Overview to the Theory of Many-Valued Equivalence Relation Based-Fuzzy Functions And Its Applications**
DEMÍRCÍ M.
The Seventh International Conference On Fuzzy Sets Theory And Its Applications, Liptovsky Jan, Slovakia, 26 - 30 January 2004, pp.41-42
- XXIII. **On the Convergence Structure of L-topological Spaces and Graded Continuity in L-Topological Spaces, I**
DEMÍRCÍ M.
International Conference on Applicable General Topology, Ankara, Turkey, 12 - 18 August 2001, pp.15
- XXIV. **On the Convergence Structure of L-topological Spaces and Graded Continuity in L-Topological Spaces, II**
DEMÍRCÍ M.
International Conference on Applicable General Topology, Ankara, Turkey, 12 - 18 August 2001, pp.16

Activities in Scientific Journals

FUZZY SETS AND SYSTEMS, Publication Committee Member, 2007 - Continues

Metrics

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Congress and Symposium Activities

TOPOLOGY, ALGEBRA AND CATEGORIES IN LOGIC 2015 (TACL 2015), Attendee, Ischia , Italy, 2015

9th International Conference on Intelligent Systems Design and Applications (ISDA'09), Attendee, Pisa, Italy, 2009

Algebraic Groups and Invariant Theory, Attendee, Ticino,Ascona, Switzerland, 2009

First International Workshop on ROUGH SETS THEORY (RST09), Attendee, Milan, Italy, 2009

Quantum Structures Brussels-Gdansk'08, Attendee, Sopot-Gdansk, Poland, 2008

The International Category Theory Conference 2008, Attendee, Calais, France, 2008

MANYVAL '08, Applications of Topological Dualities to Measure Theory, Attendee, Milan, Italy, 2008