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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. **A characterization of categorical many-valued partial orderings by categorical topologies and an application to comma categories**

DEMİRCİ M.

Fuzzy Sets and Systems, vol.469, 2023 (SCI-Expanded)

II. **Many-valued partial orders in a closed monoidal category**
DEMİRCİ M.

Fuzzy Sets and Systems, vol.468, 2023 (SCI-Expanded)

III. **Partially ordered fuzzy power set monads on the category of L-sets and their associated categories of topological space objects**
DEMİRCİ M.

Fuzzy Sets and Systems, vol.460, pp.1-32, 2023 (SCI-Expanded)

IV. **Many valued topologies on L-sets**
DEMİRCİ M.

Fuzzy Sets and Systems, vol.437, pp.97-113, 2022 (SCI-Expanded)

V. **Observability in locally vague environments**
DEMİRCİ M.

INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.128, pp.20-31, 2021 (SCI-Expanded)

VI. **On the representations of L-equivalence relations on L-fuzzy sets with applications to locally vague environments**
DEMİRCİ M.

INTERNATIONAL JOURNAL OF GENERAL SYSTEMS, vol.49, no.3, pp.334-354, 2020 (SCI-Expanded)

VII. **L-equivalence relations on L-fuzzy sets, L-partitions of L-fuzzy sets and their one-to-one connections**
DEMİRCİ M.

INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.111, pp.21-34, 2019 (SCI-Expanded)

VIII. **Stratified categorical fixed-basis fuzzy topological spaces and their duality**
DEMİRCİ M.

FUZZY SETS AND SYSTEMS, vol.267, pp.1-17, 2015 (SCI-Expanded)

IX. **Fundamental duality of abstract categories and its applications**
Demirci M.

FUZZY SETS AND SYSTEMS, vol.256, pp.73-94, 2014 (SCI-Expanded)

X. **(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 (SCI-Expanded)

XI. **Category-theoretic fuzzy topological spaces and their dualities**
Demirci M.

FUZZY SETS AND SYSTEMS, vol.227, pp.1-24, 2013 (SCI-Expanded)

XII. **The order-theoretic duality and relations between partial metrics and local equalities**
Demirci M.

FUZZY SETS AND SYSTEMS, vol.192, pp.45-57, 2012 (SCI-Expanded)

XIII. **Pointed semi-quantales and lattice-valued topological spaces**
Demirci M.

FUZZY SETS AND SYSTEMS, vol.161, no.9, pp.1224-1241, 2010 (SCI-Expanded)

XIV. **Strict fuzzy orderings with a given context of similarity**
Bodenhofer U., DEMİRCİ M.

INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.16, no.2, pp.147-178, 2008 (SCI-Expanded)

XV. **Textures and C-spaces**
Demirci M.

FUZZY SETS AND SYSTEMS, vol.158, no.11, pp.1237-1245, 2007 (SCI-Expanded)

XVI. **An introduction to vague complemented ordered sets**
Demirci M., Eken Z.

INFORMATION SCIENCES, vol.177, no.1, pp.150-160, 2007 (SCI-Expanded)

XVII.   The generalized associative law in vague groups and its applications - II
        Demirci M.
        INFORMATION SCIENCES, vol.176, no.11, pp.1488-1530, 2006 (SCI-Expanded)

XVIII. The generalized associative law in vague groups and its applications - I
        DEMİRCİ M.
        INFORMATION SCIENCES, vol.176, no.7, pp.900-936, 2006 (SCI-Expanded)

XIX.   Aggregation operators on partially ordered sets and their categorical foundations
        Demirci M.
        KYBERNETIKA, vol.42, no.3, pp.261-277, 2006 (SCI-Expanded)

XX.   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 (SCI-Expanded)

XXI.   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 (SCI-Expanded)

XXII.   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 (SCI-Expanded)

XXIII. 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 (SCI-Expanded)

XXIV.   The generalized associative law in smooth groups
        Demirci M.
        INFORMATION SCIENCES, vol.169, no.3-4, pp.227-244, 2005 (SCI-Expanded)

XXV.   Fuzzy groups, fuzzy functions and fuzzy equivalence relations
        Demirci M., Recasens J.
        FUZZY SETS AND SYSTEMS, vol.144, no.3, pp.441-458, 2004 (SCI-Expanded)

XXVI.   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 (SCI-Expanded)

XXVII. 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 (SCI-Expanded)

XXVIII. 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 (SCI-Expanded)

XXIX.   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 (SCI-Expanded)

XXX.   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 (SCI-Expanded)

XXXI.   On many-valued partitions and many-valued equivalence relations
        Demirci M.
        INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.11, no.2,

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XXXII. **Foundations of fuzzy functions and vague algebra based on many-valued equivalence relations, Part II: Vague algebraic notions**
Demirci M.
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XXXIII. **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 (SCI-Expanded)

XXXIV. **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 (SCI-Expanded)

XXXV. **Arithmetic of fuzzy quantities based on vague arithmetic operations**
Demirci M.
FUZZY SETS AND SYSTEMS - IFSA 2003, PROCEEDINGS, vol.2715, pp.159-166, 2003 (SCI-Expanded)

XXXVI. **Constructions of fuzzy functions based on fuzzy equalities**
Demirci M.
SOFT COMPUTING, vol.7, no.3, pp.199-207, 2003 (SCI-Expanded)

XXXVII. **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 (SCI-Expanded)

XXXVIII. **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 (SCI-Expanded)

XXXIX. **Gradation of being fuzzy function**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.119, no.3, pp.383-392, 2001 (SCI-Expanded)

XL. **Smooth subgroups and smooth homomorphisms**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.117, no.3, pp.439-446, 2001 (SCI-Expanded)

XLI. **Smooth groups**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.117, no.3, pp.431-437, 2001 (SCI-Expanded)

XLII. **Fuzzy functions and their applications**
Demirci M.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.252, no.1, pp.495-517, 2000 (SCI-Expanded)

XLIII. **Some notices on genuine sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.110, no.2, pp.275-278, 2000 (SCI-Expanded)

XLIV. **Axiomatic theory of intuitionistic fuzzy sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.110, no.2, pp.253-266, 2000 (SCI-Expanded)

XLV. **Fuzzy functions and their fundamental properties**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.106, no.2, pp.239-246, 1999 (SCI-Expanded)

XLVI. **Genuine sets**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.105, no.3, pp.377-384, 1999 (SCI-Expanded)

XLVII. **Vague groups**

Demirci M.

JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.230, no.1, pp.142-156, 1999 (SCI-Expanded)

XLVIII. **Three topological structures of smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.101, no.1, pp.185-190, 1999 (SCI-Expanded)

XLIX. **Neighborhood structures of smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.92, no.1, pp.123-128, 1997 (SCI-Expanded)

L. **On several types of compactness in smooth topological spaces**
Demirci M.
FUZZY SETS AND SYSTEMS, vol.90, no.1, pp.83-88, 1997 (SCI-Expanded)

LI. **ON THE AXIOMATIC THEORY OF FUZZY-SETS**
DEMIRCI M., COKER D.
FUZZY SETS AND SYSTEMS, vol.60, no.2, pp.181-198, 1993 (SCI-Expanded)

Articles Published in Other Journals

I. **On the Convergence Structure of L-topological Spaces and the Continuity in L-topological spaces**
DEMİRCİ M.
New Mathematics and Natural Computation, vol.3, pp.1-25, 2007 (ESCI)

II. **Generalized Set-Theoretic Operations on Genuine Sets**
DEMİRCİ M.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.34, pp.1-6, 2005 (Peer-Reviewed Journal)

III. **Remarks on vague groups**
DEMİRCİ 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., DEMİRCİ M.
MATEMATICKI VESNIK, vol.50, pp.75-81, 1998 (ESCI)

V. **An introduction to intuitionistic fuzzy topological spaces in Sostak's sense**
Çoker D., DEMİRCİ 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**
DEMİRCİ 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., DEMİRCİ M.
Journal of Fuzzy Mathematics, vol.4, no.4, pp.701-714, 1996 (Peer-Reviewed Journal)

VIII. **On intuitionistic fuzzy points**
Çoker D., DEMİRCİ 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**
DEMİRCİ 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

DEMİRCİ 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**

DEMİRCİ M.

7th International Conference on Fuzzy Computation Theory and Applications (FCTA 2015), Lızbon, Portugal, 12 - 14 November 2015, pp.105-111

IV. **Heyting duality as an application of fundamental categorical duality theorem**

DEMİRCİ M.

LOGIC COLLOQUIUM 2015, Helsinki, Finland, 3 - 08 August 2015, pp.748

V. **Stone and Priestley Dualities as Applications of Fundamental Categorical Duality Theorem**

DEMİRCİ M.

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

VI. **Topological Duality of Aggregation Operators**

DEMİRCİ 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**

DEMİRCİ 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**

DEMİRCİ 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**

DEMİRCİ M.

33rd Linz Seminar on Fuzzy Set Theory, Linz, Austria, 14 - 18 February 2012, pp.13-15

XI. **On augmented posets and (Z1,Z2)-complete posets**

DEMİRCİ 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**

DEMİRCİ M.

24th Summer Conference on Topology and Its Applications, Brno, Czech Republic, 14 - 17 July 2009, pp.4

XIII. **An Introduction to (Z1,Z2)-complete posets**

DEMİRCİ 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**

DEMİRCİ 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**

DEMİRCİ M.

29th Linz Seminar on Fuzzy Set Theory, Linz, Austria, 12 - 16 February 2008, pp.23-24

XVI. **Spatial semi-quantales and T0 generalized lattice-valued topological spaces**

DEMİRCİ 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**
DEMİRCİ 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**
DEMİRCİ 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., DEMİRCİ 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**
DEMİRCİ 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**
DEMİRCİ 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**
DEMİRCİ 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**
DEMİRCİ 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**
DEMİRCİ 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

Publication: 83
Citation (WoS): 696
Citation (Scopus): 752
H-Index (WoS): 15
H-Index (Scopus): 17

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