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Kişisel Bilgiler

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Eğitim Bilgileri

Bütünleşik Doktora, University of Warwick, Fizik, İngiltere 1988 - 1993

Lisans, Ondokuz Mayıs Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, Türkiye 1982 - 1986

Yabancı Diller

İngilizce, B2 Orta Üstü

Araştırma Alanları

Temel Bilimler

Akademik Unvanlar / Görevler

Prof. Dr., Ondokuz Mayıs Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2008 - Devam Ediyor

Doç. Dr., Ondokuz Mayıs Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 1998 - 2008

Ondokuz Mayıs Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 1993 - 1998

Araştırma Görevlisi, Ondokuz Mayıs Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 1987 - 1993

Akademik İdari Deneyim

Ondokuz Mayıs Üniversitesi, 2008 - 2009

Verdiği Dersler

ATOM VE MOLEKÜL FİZİĞİ I, Lisans, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

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2011

NÜKLEER MAGNETİK REZONANS I, Yüksek Lisans, 2017 - 2018, 2010 - 2011, 2009 - 2010

BİYOFİZİK, Lisans, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

MANYETİK REZONANS KUANTUM BİLGİ TEORİSİ I, Doktora, 2015 - 2016, 2011 - 2012

FİZİK LAB II, Lisans, 2015 - 2016

MANYETİK REZONANS KUANTUM BİLGİ TEORİSİ II, Doktora, 2015 - 2016, 2012 - 2013

FİZİK LAB I, Lisans, 2015 - 2016

KUANTUM BİLGİ TEORİSİ, Yüksek Lisans, 2014 - 2015, 2012 - 2013, 2011 - 2012, 2009 - 2010

SAĞLIK FİZİĞİ, Lisans, 2014 - 2015, 2013 - 2014, 2012 - 2013

Biyofizik, Lisans, 2011 - 2012

Modern Fizik, Lisans, 2010 - 2011, 2009 - 2010

Genel Fizik, Lisans, 2009 - 2010

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Quantum coherence resourced by the strong nuclear quadrupolar interaction**
Cakmak S., Gençten A., ALTINTAŞ F.
PHYSICA SCRIPTA, sa.10, 2023 (SCI-Expanded)
- II. **Algorithmic quantum heat engines**
Kose E., Cakmak S., Gençten A., Kominis I. K., Mustecaplioglu O. E.
PHYSICAL REVIEW E, cilt.100, sa.1, 2019 (SCI-Expanded)
- III. **Construction of Two-Quqart Quantum Entanglement by Using Magnetic Resonance Selective Pulse Sequences**
Karakas M. D., Gençten A.
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, cilt.73, sa.10, ss.911-918, 2018 (SCI-Expanded)
- IV. **Irreversible work and internal friction in a quantum Otto cycle of a single arbitrary spin**
Cakmak S., Altintas F., Gençten A., Mustecaplioglu O. E.
EUROPEAN PHYSICAL JOURNAL D, cilt.71, sa.3, 2017 (SCI-Expanded)
- V. **Construction of four-qubit quantum entanglement for SI ($S=3/2$, $I=3/2$) spin system**
Gün A., Cakmak S., Gençten A.
QUANTUM INFORMATION PROCESSING, cilt.12, sa.1, ss.205-215, 2013 (SCI-Expanded)
- VI. **THREE-QUBIT QUANTUM ENTANGLEMENT FOR SI ($S = 3/2$, $I = 1/2$) SPIN SYSTEM**
Gun A., Gencten A.
INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, cilt.9, sa.7-8, ss.1635-1642, 2011 (SCI-Expanded)
- VII. **CONSTRUCTION AND APPLICATION OF FOUR-QUBIT SWAP LOGIC GATE IN NMR QUANTUM COMPUTING**
Gun A., Saka I., Gencten A.
INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, cilt.9, sa.2, ss.779-790, 2011 (SCI-Expanded)
- VIII. **Spectral editing with 2D E-HMQC NMR spectroscopy for CDn groups: A theoretical study**
Şaka I., Gümüş S., Gençten A.
Indian Journal of Pure and Applied Physics, cilt.48, sa.9, ss.626-631, 2010 (SCI-Expanded)
- IX. **A Complete Product Operator Theory for IS ($I=1$, $S=1$) Spin System and Application to 3D HMQC-COSY NMR Experiment**
Saka I., Gümüş S., Gençten A.
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, cilt.64, sa.5-6, ss.377-386, 2009 (SCI-Expanded)
- X. **A theoretical investigation of 2D MAXY-JRES NMR spectroscopy of CDnCDm groups**
Saka I., Gençten A.

ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, cilt.63, sa.5-6, ss.339-350, 2008 (SCI-Expanded)

- XI. **Product operator theory of 2D MAXY-HMQC NMR spectroscopy for CD_n groups**
Saka I, Gençten A.
JOURNAL OF MOLECULAR STRUCTURE, cilt.834, ss.521-524, 2007 (SCI-Expanded)
- XII. **A theoretical application of MAXY NMR for CD_n groups**
Saka I, Gençten A.
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, cilt.62, sa.5-6, ss.259-264, 2007 (SCI-Expanded)
- XIII. **A complete product operator theory for IS (I = (1)/(2), S=1) spin system and application to DEPT-HMQC NMR experiment**
Gençten A., Saka I.
MOLECULAR PHYSICS, cilt.104, sa.18, ss.2983-2989, 2006 (SCI-Expanded)
- XIV. **Product operator descriptions of INEPT and RINEPT NMR spectroscopies for IS_n (I=1/2, S=3/2) spin systems**
Tokatli A., Gençten A., Sahin M., Tezel O., Bahçeli S.
JOURNAL OF MAGNETIC RESONANCE, cilt.169, sa.1, ss.68-72, 2004 (SCI-Expanded)
- XV. **A theoretical investigation of distortionless enhancement by polarization transfer and subspectral editing with a multiple quantum trap NMR spectroscopy for CX_n groups**
Tezel O., Gençten A., Tokatli A., Sahin M., Bahçeli S.
ACTA PHYSICA POLONICA A, cilt.104, sa.5, ss.503-511, 2003 (SCI-Expanded)
- XVI. **Subspectrum editing with a multiple quantum trap of IS_n spin systems by using product operator theory**
Sahin M., Tokatli A., Bahçeli S., Gençten A.
ACTA PHYSICA POLONICA A, cilt.104, sa.1, ss.73-80, 2003 (SCI-Expanded)
- XVII. **A theoretical application of 3D J-resolved NMR spectroscopy for IS_nK_m (I=1/2, S=1/2 and 1, K=3/2) spin systems**
Saka I, Tezel O., Gençten A.
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, cilt.58, sa.2-3, ss.139-143, 2003 (SCI-Expanded)
- XVIII. **Product operator theory for spin-5/2 nuclei: Application to 2D J-resolved NMR spectroscopy**
Tokatli A., Gençten A., Bahçeli S.
SPECTROSCOPY LETTERS, cilt.36, sa.5-6, ss.449-459, 2003 (SCI-Expanded)
- XIX. **Product operator theory for spin-3/2 nuclei and application to 2D J-resolved NMR spectroscopy**
Gençten A., Tezel Ö., Bahçeli S.
Chemical Physics Letters, cilt.351, sa.1-2, ss.109-114, 2002 (SCI-Expanded)
- XX. **A product operator theory of ¹³C spin-echo J-modulation NMR spectroscopy for CD_n (n = 1,2,3) groups**
Gençten A., Tezel Ö.
Spectroscopy Letters, cilt.34, sa.4, ss.505-511, 2001 (SCI-Expanded)
- XXI. **A theoretical investigation of 3D J-resolved NMR spectroscopy for IS_nK_m (I = 1/2, S = 1/2 and 1, K = 1) spin systems**
Gençten A., Tezel Ö.
Spectroscopy Letters, cilt.34, sa.3, ss.317-324, 2001 (SCI-Expanded)
- XXII. **A theoretical application of SEMUT NMR spectroscopy to deuterated compounds**
Gençten A., Tezel Ö., Köroğlu A.
Applied Magnetic Resonance, cilt.20, sa.1-2, ss.265-273, 2001 (SCI-Expanded)
- XXIII. **ESR of gamma irradiated (NH₄)₂C₂O₄.H₂O and K₂C₂O₄.H₂O single crystals**
Tezel O., Köroğlu A., Gençten A., Celik F.
Indian Journal of Pure and Applied Physics, cilt.37, sa.2, ss.122-126, 1999 (SCI-Expanded)
- XXIV. **A product operator theory of 2D DEPT J-resolved NMR spectroscopy for IS_n spin system (I=1/2,**

S=1)

Gençten A., Özdoğan T., Köksal F.

Spectroscopy Letters, cilt.31, sa.5, ss.981-987, 1998 (SCI-Expanded)

XXV. **Electron paramagnetic resonance of Cu²⁺ doped Na₂HAsO₄·7H₂O single crystals**

Köksal F., Kartal I., Gençten A.

Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, cilt.53, sa.9, ss.779-782, 1998 (SCI-Expanded)

XXVI. **A product operator description of 2D-J resolved NMR spectroscopy for I_n spin system (I=1/2, S=1)**

Gençten A., Köksal F.

Spectroscopy Letters, cilt.30, sa.1, ss.71-78, 1997 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. **Three-Qutrit Topological SWAP Logic Gate for ISK (I= 1, S= 1, K= 1) Spin System**
Şahin Ö., GENÇTEN A.
Journal of Applied Mathematics and Physics, cilt.5, sa.12, ss.2320-2325, 2017 (Hakemli Dergi)
- II. **Quantum Superdense Coding for Three and Four Qubit Entangled States**
GÜN A., GENÇTEN A.
ADVANCED SCIENCE, ENGINEERING AND MEDICINE, cilt.5, sa.11, ss.1209-1215, 2013 (Hakemli Dergi)
- III. **Quantum Simulation of 2p Electronic Hamiltonian in Molecular Ethylene by Using an NMR Quantum Computer**
TÜRKPENÇE D., GENÇTEN A.
Journal of Quantum Information Science, cilt.3, sa.02, ss.78-84, 2013 (Hakemli Dergi)
- IV. **2D J INEPT NMR Spectroscopy for CD_n Groups A Theoretical Study**
GENÇTEN A., ŞAKA İ.
Journal of Modern Physics, cilt.2, sa.07, ss.719-723, 2011 (Hakemli Dergi)
- V. **INEPT NMR Spectroscopy of (ND_n)-N-14 groups: product operator theory and simulation**
Türkpençe D., Sekka I., Gençten A.
TURKISH JOURNAL OF PHYSICS, cilt.34, sa.3, ss.139-148, 2010 (ESCI)
- VI. **2D MAXY-JRES NMR Spectroscopy of CH_nCH_m (CA(n)CX(m)) Groups: Product Operator Theory and Simulation**
Saka I., Gumus S., Gençten A.
TURKISH JOURNAL OF PHYSICS, cilt.31, sa.6, ss.347-354, 2007 (ESCI)
- VII. **A THEORETICAL INVESTIGATION OF PENDANT ¹³C NMRSPECTROSCOPY FOR CD_n GROUPS**
GENÇTEN A., ŞAKA İ., GÜMÜŞ S.
SDÜ FEN EDEBİYAT FAKÜLTESİ FEN DERGİSİ (E-DERĞİ), cilt.1, sa.1-2, ss.42-49, 2006 (Hakemli Dergi)
- VIII. **PENDANT C-13 NMR Spectroscopy Applied to CH_n Groups**
Gençten A., Saka I., Gumus S.
TURKISH JOURNAL OF PHYSICS, cilt.30, sa.3, ss.149-155, 2006 (ESCI)
- IX. **A product operator formalism of 3D J-resolved NMR spectroscopy for I_nK_m(I = 1/2, S = 1/2, K = 1/2) spin system**
Tezel Ö., Gençten A.
Turkish Journal of Physics, cilt.24, sa.6, ss.759-764, 2000 (Scopus)
- X. **Magic-angle spinning NMR: An experimental approach**
Gençten A.
Turkish Journal of Physics, cilt.20, sa.2, ss.146-152, 1996 (Scopus)
- XI. **An examination of one component model in Zn and Ni doped YBa₂Cu₃O_{7-δ}**
Gençten A.
Turkish Journal of Physics, cilt.20, sa.5, ss.454-458, 1996 (Scopus)

- XII. **NMR evidence for the OT structural transition in $YBa_2(Cu_{1-x}M_x)_{3O_{7-\delta}}$ ($M = Co, Al$ and Ga)**
Gençten A., Dupree R., Paul D.
Physica C: Superconductivity and its applications, cilt.216, sa.3-4, ss.491-494, 1993 (Scopus)
- XIII. **Absence of magnetic pair breaking in Zn-doped $YBa_2Cu_3O_7$**
Walstedt R., Bell R., Schneemeyer L., Waszczak J., Warren Jr. W., Dupree R., Gençten A.
Physical Review B, cilt.48, sa.14, ss.10646-10649, 1993 (Scopus)
- XIV. **A ^{89}Y NMR study of substitution for copper in $YBa_2(Cu_{1-x}M_x)_3O_7$**
Dupree R., Gençten A., Paul D.
Physica C: Superconductivity and its applications, cilt.193, sa.1-2, ss.81-89, 1992 (Scopus)
- XV. **NMR evidence for common magnetic behavior in double layered superconducting cuprates**
Han Z., Dupree R., Gençten A., Liu R., Edwards P.
Physical Review Letters, cilt.69, sa.8, ss.1256-1259, 1992 (Scopus)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **A Comparison Between Two Qubit and Two Ququart Quantum Phase Estimation**
HAMZAÇEBİ M., KURT M., GENÇTEN A.
Turkish Physical Society 39th International Physics Congress, Bodrum, 31 Ağustos - 04 Eylül 2023, cilt.5, ss.31-36
- II. **The Constructions of Up and Down Quantum Counter Circuits for Qudit Systems**
KURT M., KALTEHEI A., ÇAKMAK S., GENÇTEN A.
Turkish Physical Society 39th International Physics Congress, Bodrum, Türkiye, 31 Ağustos - 04 Eylül 2023, cilt.5, ss.37-41
- III. **CONSTRUCTION OF THE NAND GATE IN QUANTUM COMPUTING SYSTEMS USING QUANTUM FOURIER TRANSFORM**
KURT M., KALTEHEI A., ÇAKMAK S., GENÇTEN A.
3RD INTERNATIONAL BLACK SEA MODERN SCIENTIFIC RESEARCH CONGRESS, Samsun, Türkiye, 23 - 24 Mart 2023
- IV. **A Generalized Quantum Addition Circuit Based on Quantum Fourier Transform**
KURT M., GENÇTEN A.
TURKISH PHYSICAL SOCIETY 37TH INTERNATIONAL PHYSICS CONGRESS, Bodrum/MUĞLA, Türkiye, 01 Eylül 2021, cilt.3, ss.13-17
- V. **A Simulation of Quantum Fourier Transform for Qudit Systems**
KURT M., GENÇTEN A.
4th International Conference on Physical Chemistry and Functional Materials, Elazığ, Türkiye, 08 Nisan 2021, ss.63-66
- VI. **An Investigation of Quantum Error Correction for Nine Qutrit**
SAID H., GENÇTEN A.
4th International Conference on Physical Chemistry and Functional Materials, Elazığ, Türkiye, 08 Nisan 2021, ss.84-90
- VII. **Development of Some Two and Three Qutrit Quantum Logic Gates**
Terzi S., Gençten A.
35th International Physics Congress of the Turkish-Physical-Society (TPS), Bodrum, Türkiye, 4 - 08 Eylül 2019, cilt.2178
- VIII. **An Investigation of $S=5/2, 1=5/2$ Spin System as Two Qudit Quantum States**
Turkyolu M., Gençten A.
35th International Physics Congress of the Turkish-Physical-Society (TPS), Bodrum, Türkiye, 4 - 08 Eylül 2019, cilt.2178
- IX. **Multivalued Quantum Logic Circuits: Some New Suggestions and Applications**
KARAKAŞ M. D., GENÇTEN A.
1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, Giresun, Türkiye, 27 - 29 Haziran 2018,

- X. **Construction of Quantum Teleportation Circuit for Qudits**
KARAKAŞ M. D., GENÇTEN A.
1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, Giresun, Türkiye, 27 - 29 Haziran 2018
- XI. **Construction and Application of SWAP Logic Gate for Two Ququart States**
GENÇTEN A., KARAKAŞ M. D.
International Conference on Physical Chemistry and Functional Materials(PCFM'18), Elazığ, Türkiye, 19 - 21 Haziran 2018
- XII. **Implementations of Some Quantum Logic Gates by Using Magnetic Resonance Selective Pulse Sequences**
GENÇTEN A., KARAKAŞ M. D.
International Conference on Physical Chemistry and Functional Materials(PCFM'18), Elazığ, Türkiye, 19 - 21 Haziran 2018
- XIII. **A Single Arbitrary Driven Spin as a Quantum Otto Engine: The Role Of Internal Friction**
ÇAKMAK S., ALTINTAŞ F., MÜSTECAPLIOĞLU Ö. E., GENÇTEN A.
Kuantum Optiği ve Bilişim Toplantısı, İstanbul, Türkiye, 1 - 02 Şubat 2018
- XIV. **Redefinition of Some Quantum Logic Gates by Using the Direct Sum Algebra**
Çorbacı S., KARAKAŞ M. D., GENÇTEN A.
Turkish Physical Society 33rd International Physics Congress, Bodrum/ MUĞLA, Türkiye, 6 - 10 Eylül 2017, ss.260
- XV. **A Generalization of Superdense Coding for Two Qudit States**
KARAKAŞ M. D., GENÇTEN A.
Turkish Physical Society 33rd International Physics Congress, Bodrum/ MUĞLA, Türkiye, 6 - 10 Eylül 2017, ss.216
- XVI. **The Analysis of Quantum Qutrit Entanglements in a Qutrit Based Hyper-Sphere in Terms of Gluing and Combining Products**
Duran V., Gençten A.
9th International Physics Conference of the Balkan-Physical-Union (BPU), İstanbul, Türkiye, 24 - 27 Ağustos 2015, cilt.1722
- XVII. **An investigation for quantum qutrit entanglements through colour wheel compass**
Duran V., Gençten A.
International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Türkiye, 25 - 27 Mayıs 2016, cilt.766
- XVIII. **Construction of two qutrit entanglement by using magnetic resonance selective pulse sequences**
Corbaci S., Karakas M. D., Gençten A.
International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Türkiye, 25 - 27 Mayıs 2016, cilt.766