

## Prof. Dr. SADİ TURGUT

### Kişisel Bilgiler

Fax Telefonu: [+90 312 210 5099](tel:+903122105099)

E-posta: [sturgut@metu.edu.tr](mailto:sturgut@metu.edu.tr)

Web: <http://www.physics.metu.edu.tr/~sturgut/>

### Uluslararası Araştırmacı ID'leri

ScholarID: E0i0\_doAAAAJ

ORCID: 0000-0003-4575-8424

Publons / Web Of Science ResearcherID: A-6589-2010

ScopusID: 7004835080

Yoksis Araştırmacı ID: 46196

### Eğitim Bilgileri

Doktora, University of California, Berkeley, Graduate School, Physics, Amerika Birleşik Devletleri 1989 - 1995

Lisans, Orta Doğu Teknik Üniversitesi, Fen Edebiyat, Fizik, Türkiye 1985 - 1989

### Yabancı Diller

İngilizce, C1 İleri

### Yaptığı Tezler

Doktora, Impurity effects in charge-density-wave systems, University Of California, Berkeley, Graduate School, Physics, 1995

### Araştırma Alanları

Fizik, Yoğun Madde 2:Elektronik Yapı, Elektrik, Manyetik ve Optik Özellikler, Yoğun maddede elektronik taşınım, Temel Bilimler

### Akademik Unvanlar / Görevler

Prof. Dr., Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 2014 - Devam Ediyor

Doç. Dr., Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 2011 - 2014

Yrd. Doç. Dr., Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 2004 - 2011

Öğretim Görevlisi, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 1996 - 2004

### Akademik İdari Deneyim

Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 2012 - 2016

## Yönetilen Tezler

- TURGUT S., Demonstration of quantum contextuality via Hardy Paradox, Yüksek Lisans, Y.YOLSEVER(Öğrenci), 2022
- TURGUT S., Quantum information approach to correlations in many-body systems, Doktora, Ç.AKSAK(Öğrenci), 2022
- TURGUT S., Security of quantum key recycling, Yüksek Lisans, K.AKYÜZ(Öğrenci), 2022
- TURGUT S., Quantum search in sets with prior knowledge, Yüksek Lisans, U.ÇALIKYILMAZ(Öğrenci), 2021
- TURGUT S., Nonlinearities in quantum correlations of two time-like separated measurements, Yüksek Lisans, H.GHARIB(Öğrenci), 2021
- TURGUT S., Thermal rectification behaviour of some small quantum systems, Yüksek Lisans, S.ATILAY(Öğrenci), 2021
- TURGUT S., Discrimination of quantum states under local operations and classical communication, Yüksek Lisans, Ö.GÜNGÖR(Öğrenci), 2015
- TURGUT S., Bell-like inequalities in quantum information theory, Yüksek Lisans, Z.CAN(Öğrenci), 2015
- TURGUT S., Weight discrimination of boolean functions with quantum computation, Doktora, K.UYANIK(Öğrenci), 2014
- TURGUT S., Transformations of entangled mixed states of two qubits, Yüksek Lisans, Ü.ALKUŞ(Öğrenci), 2013
- TURGUT S., Landauer erasure for quantum systems, Yüksek Lisans, Ç.AKSAK(Öğrenci), 2009
- TURGUT S., Entanglement transformations, Yüksek Lisans, S.KINTAŞ(Öğrenci), 2009
- TURGUT S., Quantum decoherence and quantum state diffusion formalism, Yüksek Lisans, C.KADRİ(Öğrenci), 2007
- TURGUT S., Ratchet effect in mesoscopic systems, Yüksek Lisans, U.YİĞİT(Öğrenci), 2005
- TURGUT S., A continuum model for decoherence in 1D transport, Yüksek Lisans, S.ŞENOZAN(Öğrenci), 2005
- TURGUT S., Thermoelectric effects in mesoscopic physics, Doktora, M.ALI(Öğrenci), 2004
- TURGUT S., Mezoskopik fizikte termoelektrik etkiler, Doktora, M.Ali(Öğrenci), 2004

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayımlanan Makaleler

- I. **Witnessing pairing correlations in identical-particle systems**  
Aksak C., TURGUT S.  
Quantum Information and Computation, cilt.21, sa.15-16, ss.1307-1319, 2021 (SCI-Expanded)
- II. **Entanglement-assisted state discrimination and entanglement preservation**  
Gungor O., TURGUT S.  
PHYSICAL REVIEW A, cilt.94, sa.3, 2016 (SCI-Expanded)
- III. **An elementary derivation of the quantum virial theorem from Hellmann-Feynman theorem**  
İPEKOĞLU Y., TURGUT S.  
EUROPEAN JOURNAL OF PHYSICS, cilt.37, sa.4, 2016 (SCI-Expanded)
- IV. **Spin-orbit effects on the nonlinear optical properties of a quantum dot in simultaneous electric and magnetic fields**  
AYTEKİN Ö., TURGUT S., TOMAK M.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, cilt.64, ss.29-32, 2014 (SCI-Expanded)
- V. **Nonlinear optical properties of a Woods-Saxon quantum dot under an electric field**  
AYTEKİN Ö., TURGUT S., Unal V. U., Aksahin E., TOMAK M.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, cilt.54, ss.257-261, 2013 (SCI-Expanded)
- VI. **A new sure-success generalization of Grover iteration and its application to weight decision problem of Boolean functions**  
Uyanik K., TURGUT S.  
QUANTUM INFORMATION PROCESSING, cilt.12, sa.11, ss.3395-3409, 2013 (SCI-Expanded)
- VII. **Nonlinear optical properties of a Poschl-Teller quantum well under electric and magnetic fields**  
AYTEKİN Ö., TURGUT S., Tomak M.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, cilt.44, ss.1612-1616, 2012 (SCI-Expanded)
- VIII. **Gauge covariance and spin-current conservation in the gauge-field formulation of systems with spin-orbit coupling**  
SHIKAKHWA M., TURGUT S., PAK N. K.

- JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, cilt.45, sa.10, 2012 (SCI-Expanded)
- IX. **Environmental effects on the geometric phase**  
GÜNHAN A. C., TURGUT S., PAK N. K.  
EUROPEAN PHYSICAL JOURNAL D, cilt.64, sa.1, ss.155-162, 2011 (SCI-Expanded)
- X. **A continuum model for dephasing in mesoscopic systems**  
Şenozan S., TURGUT S., Tomak M.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, cilt.43, sa.10, ss.1845-1852, 2011 (SCI-Expanded)
- XI. **Heat transfer operators associated with quantum operations**  
AKSAK Ç., TURGUT S.  
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, cilt.44, sa.27, 2011 (SCI-Expanded)
- XII. **Derivation of the magnetization current from the non relativistic Pauli equation A comment on The quantum mechanical current of the Pauli equation by Marek Nowakowski Am J Phys 67 10 916 1999**  
SHIKAKHWA M., TURGUT S., PAK N. K.  
American Journal Of Physics, cilt.79, ss.1177, 2011 (SCI-Expanded)
- XIII. **Transformations of W-type entangled states**  
Kintas S., Turgut S.  
JOURNAL OF MATHEMATICAL PHYSICS, cilt.51, sa.9, 2010 (SCI-Expanded)
- XIV. **Geometric measures of entanglement**  
UYANIK K., TURGUT S.  
PHYSICAL REVIEW A, cilt.81, sa.3, 2010 (SCI-Expanded)
- XV. **Deterministic transformations of multipartite entangled states with tensor rank 2**  
TURGUT S., GÜL Y., PAK N. K.  
PHYSICAL REVIEW A, cilt.81, sa.1, 2010 (SCI-Expanded)
- XVI. **Relations between entropies produced in nondeterministic thermodynamic processes**  
TURGUT S.  
PHYSICAL REVIEW E, cilt.79, sa.4, 2009 (SCI-Expanded)
- XVII. **FIGURE OF MERIT OF ONE DIMENSIONAL RESONANT TRANSMISSION SYSTEMS IN THE QUANTUM REGIME**  
ÇİPİLOĞLU M. A., TURGUT S.  
Mathematical Applications, cilt.14, ss.13-19, 2009 (SCI-Expanded)
- XVIII. **Catalytic transformations for bipartite pure states**  
TURGUT S.  
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, cilt.40, sa.40, ss.12185-12212, 2007 (SCI-Expanded)
- XIX. **Nonlinear Seebeck and Peltier effects in quantum point contacts**  
Çipiloğlu M. A., TURGUT S., Tomak M.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, cilt.241, sa.11, ss.2575-2585, 2004 (SCI-Expanded)
- XX. **Half plateaus in the linear thermal conductance of quantum point contacts**  
ÇİPİLOĞLU M. A., TURGUT S.  
JOURNAL OF PHYSICS-CONDENSED MATTER, cilt.16, sa.21, ss.3671-3679, 2004 (SCI-Expanded)
- XXI. **PHENOMENOLOGICAL GINZBURG-LANDAU THEORY OF CHARGE-DENSITY-WAVE SPECTRA**  
TURGUT S., Falicov L. M.  
PHYSICAL REVIEW B, cilt.50, sa.12, ss.8221-8229, 1994 (SCI-Expanded)
- XXII. **Theory of impurity induced lattice distortions in the normal phase of charge density wave systems**  
TURGUT S., Falicov L. M.  
PHYSICAL REVIEW B, cilt.49, ss.14043-14046, 1994 (SCI-Expanded)

## Metrikler

Yayın: 22

Atf (WoS): 330

Atıf (Scopus): 335

H-İndeks (WoS): 9

H-İndeks (Scopus): 9

## **Akademi Dışı Deneyim**

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