

# Dr. Öğr. Üyesi AHMET KELEŞ

## Kişisel Bilgiler

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## Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: U-2932-2018

ScopusID: 23004875700

Yoksis Araştırmacı ID: 325453

## Eğitim Bilgileri

Doktora, University of Washington, College of Arts & Sciences, Department of Physics, Amerika Birleşik Devletleri 2009 - 2014

Yüksek Lisans, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik Bölümü, Türkiye 2007 - 2009

Lisans, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik Bölümü, Türkiye 2002 - 2007

## Yaptığı Tezler

Doktora, Transport properties of chiral p-wave superconductor-normal metal nanostructures, University of Washington, College of Arts & Sciences, Department of Physics, 2014

Yüksek Lisans, Rotating two leg Bose Hubbard ladder, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2009

## Araştırma Alanları

Kuantum akışkanları ve katları, Bulk malzemenin elektronik yapısı, Manyetik özellikler ve malzemeler, Süperiletkenlik

## Akademik Unvanlar / Görevler

Dr. Öğr. Üyesi, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, 2020 - Devam Ediyor

Araştırmacı, The University of Pittsburgh, 2014 - 2019

Araştırmacı, George Mason University, 2014 - 2019

Araştırma Görevlisi, University of Washington, Collage of Arts and Science, Department of Physics, 2009 - 2014

Araştırma Görevlisi, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2007 - 2009

## Verdiği Dersler

General Physics, Lisans, 2020 - 2021

## **Yönetilen Tezler**

Keleş A., Neural-network quantum states for a two-leg Bose-Hubbard ladder under a synthetic magnetic field, Yüksek

Lisans, K.ÇEVEN(Öğrenci), 2023

Keleş A., Quench topology of chern insulators, Yüksek Lisans, Ö.KUM(Öğrenci), 2023

Keleş A., Spin-1 droplets stabilized by spin fluctuations, Doktora, T.ALPER(Öğrenci), 2023

## **SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler**

- I. **Pairing from repulsion in a two-dimensional Fermi gas with soft-core interactions**  
KELEŞ A., Li X., Zhao E.  
Physical Review B, cilt.109, sa.5, 2024 (SCI-Expanded)
- II. **Vortex lattices in strongly confined quantum droplets**  
YOĞURT T. A., TANYERİ U., KELEŞ A., Oktel M.  
Physical Review A, cilt.108, sa.3, 2023 (SCI-Expanded)
- III. **Polarized Rabi-coupled and spinor boson droplets**  
YOĞURT T. A., KELEŞ A., Oktel M.  
Physical Review A, cilt.107, sa.2, 2023 (SCI-Expanded)
- IV. **Neural-network quantum states for a two-leg Bose-Hubbard ladder under magnetic flux**  
Çeven K., Oktel M. Ö., Keleş A.  
PHYSICAL REVIEW A, cilt.106, sa.6, 2022 (SCI-Expanded)
- V. **Dimers, trimers, tetramers, and other multimers in a multiband Bose-Hubbard model**  
Iskin M., KELEŞ A.  
Physical Review A, cilt.106, sa.4, 2022 (SCI-Expanded)
- VI. **Stability of (N+1) -body fermion clusters in a multiband Hubbard model**  
Iskin M., KELEŞ A.  
Physical Review A, cilt.106, sa.3, 2022 (SCI-Expanded)
- VII. **Spinor boson droplets stabilized by spin fluctuations**  
YOĞURT T. A., KELEŞ A., Oktel M. Ö.  
Physical Review A, cilt.105, sa.4, 2022 (SCI-Expanded)
- VIII. **Rise and fall of plaquette order in the Shastry-Sutherland magnet revealed by pseudofermion functional renormalization group**  
KELEŞ A., Zhao E.  
PHYSICAL REVIEW B, cilt.105, sa.4, 2022 (SCI-Expanded)
- IX. **f-wave superfluidity from repulsive interaction in Rydberg-dressed Fermi gas**  
Keles A., Zhao E., Li X.  
PHYSICAL REVIEW A, cilt.101, sa.2, 2020 (SCI-Expanded)
- X. **Scrambling dynamics and many-body chaos in a random dipolar spin model**  
Keles A., Zhao E., Liu W. V.  
PHYSICAL REVIEW A, cilt.99, sa.5, 2019 (SCI-Expanded)
- XI. **Weyl nodes in periodic structures of superconductors and spin-active materials**  
Keles A., Zhao E.  
PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES, cilt.376, sa.2125, 2018 (SCI-Expanded)
- XII. **Renormalization group analysis of dipolar Heisenberg model on square lattice**  
Keles A., Zhao E.  
PHYSICAL REVIEW B, cilt.97, sa.24, 2018 (SCI-Expanded)
- XIII. **Absence of Long-Range Order in a Triangular Spin System with Dipolar Interactions**  
Keles A., Zhao E.  
PHYSICAL REVIEW LETTERS, cilt.120, sa.18, 2018 (SCI-Expanded)

- XIV. **Effective theory of interacting fermions in shaken square optical lattices**  
Keles A., Zhao E., Liu W. V.  
PHYSICAL REVIEW A, cilt.95, sa.6, 2017 (SCI-Expanded)
- XV. **Competing many-body instabilities in two-dimensional dipolar Fermi gases**  
Keles A., Zhao E.  
PHYSICAL REVIEW A, cilt.94, sa.3, 2016 (SCI-Expanded)
- XVI. **Mott transition in a two-leg Bose-Hubbard ladder under an artificial magnetic field**  
Keles A., Oktel M. O.  
PHYSICAL REVIEW A, cilt.91, sa.1, 2015 (SCI-Expanded)
- XVII. **Theory of disordered unconventional superconductors**  
Keles A., Andreev A. V., Spivak B. Z., Kivelson S. A.  
JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS, cilt.119, sa.6, ss.1109-1114, 2014 (SCI-Expanded)
- XVIII. **Vortex lattices in dipolar two-component Bose-Einstein condensates**  
Ghazanfari N., Keles A., Oktel M. O.  
PHYSICAL REVIEW A, cilt.89, sa.2, 2014 (SCI-Expanded)
- XIX. **Electron transport in p-wave superconductor-normal metal junctions**  
Keles A., Andreev A. V., Spivak B. Z.  
PHYSICAL REVIEW B, cilt.89, sa.1, 2014 (SCI-Expanded)
- XX. **Ground-state properties, vortices, and collective excitations in a two-dimensional Bose-Einstein condensate with gravitylike interatomic attraction**  
Keles A., Sevincli S., Tanatar B.  
PHYSICAL REVIEW A, cilt.77, sa.5, 2008 (SCI-Expanded)
- XXI. **Ground-state properties and collective excitations in a 2D Bose-Einstein condensate with gravity-like interatomic attraction**  
Keles A., Sevincli S., Tanatar B.  
JOURNAL OF LOW TEMPERATURE PHYSICS, cilt.150, ss.630-635, 2008 (SCI-Expanded)

## Bilimsel Hakemlikler

PHYSICAL REVIEW LETTERS, SCI Kapsamındaki Dergi, Ekim 2018

PHYSICAL REVIEW LETTERS, SCI Kapsamındaki Dergi, Eylül 2018

## Metrikler

Yayın: 21

Atıf (WoS): 186

Atıf (Scopus): 193

H-İndeks (WoS): 8

H-İndeks (Scopus): 8