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International Researcher IDs

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

ScopusID: 23004875700

Yoksis Researcher ID: 325453

Education Information

Doctorate, University of Washington, College of Arts & Sciences, Department of Physics, United States Of America 2009 - 2014

Postgraduate, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, Turkey 2007 - 2009

Undergraduate, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, Turkey 2002 - 2007

Dissertations

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

Postgraduate, Rotating two leg Bose Hubbard ladder, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, 2009

Research Areas

Quantum fluids and solids, Electronic structure of bulk material, Magnetic Properties and Materials, Superconductivity

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2020 - Continues

Researcher, The University of Pittsburgh, 2014 - 2019

Researcher, George Mason University, 2014 - 2019

Research Assistant, University of Washington, Collage of Arts and Science, Department of Physics, 2009 - 2014

Research Assistant, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, 2007 - 2009

Courses

Advising Theses

Keleş A., Neural-network quantum states for a two-leg Bose-Hubbard ladder under a synthetic magnetic field, Postgraduate, K.ÇEVEN(Student), 2023

Keleş A., Quench topology of chern insulators, Postgraduate, Ö.KUM(Student), 2023

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

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Pairing from repulsion in a two-dimensional Fermi gas with soft-core interactions**
KELEŞ A., Li X., Zhao E.
Physical Review B, vol.109, no.5, 2024 (SCI-Expanded)
- II. **Vortex lattices in strongly confined quantum droplets**
YOĞURT T. A., TANYERİ U., KELEŞ A., Oktel M.
Physical Review A, vol.108, no.3, 2023 (SCI-Expanded)
- III. **Polarized Rabi-coupled and spinor boson droplets**
YOĞURT T. A., KELEŞ A., Oktel M.
Physical Review A, vol.107, no.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, vol.106, no.6, 2022 (SCI-Expanded)
- V. **Dimers, trimers, tetramers, and other multimers in a multiband Bose-Hubbard model**
Iskin M., KELEŞ A.
Physical Review A, vol.106, no.4, 2022 (SCI-Expanded)
- VI. **Stability of (N+1) -body fermion clusters in a multiband Hubbard model**
Iskin M., KELEŞ A.
Physical Review A, vol.106, no.3, 2022 (SCI-Expanded)
- VII. **Spinor boson droplets stabilized by spin fluctuations**
YOĞURT T. A., KELEŞ A., Oktel M. Ö.
Physical Review A, vol.105, no.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, vol.105, no.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, vol.101, no.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, vol.99, no.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, vol.376, no.2125, 2018 (SCI-Expanded)
- XII. **Renormalization group analysis of dipolar Heisenberg model on square lattice**
Keles A., Zhao E.
PHYSICAL REVIEW B, vol.97, no.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, vol.120, no.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, vol.95, no.6, 2017 (SCI-Expanded)
- XV. **Competing many-body instabilities in two-dimensional dipolar Fermi gases**
Keles A., Zhao E.
PHYSICAL REVIEW A, vol.94, no.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, vol.91, no.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, vol.119, no.6, pp.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, vol.89, no.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, vol.89, no.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, vol.77, no.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, vol.150, pp.630-635, 2008 (SCI-Expanded)

Scientific Refereeing

PHYSICAL REVIEW LETTERS, SCI Journal, October 2018

PHYSICAL REVIEW LETTERS, SCI Journal, September 2018

Metrics

Publication: 21

Citation (WoS): 183

Citation (Scopus): 193

H-Index (WoS): 8

H-Index (Scopus): 8