

## Personal Information

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## Education Information

Doctorate, Purdue University, Dept. Of Computer Science, United States Of America 2009 - 2014

Under Graduate, Erciyes Üniversitesi, Bilgisayar Mühendisliği Bölümü, Turkey 2002 - 2007

## Dissertations

Doctorate, Quantum Circuit Design Methods and Applications, Purdue University, Computer Science, Computer Science, 2014

## Academic Titles / Tasks

Assistant Professor, İstanbul Medeniyet Üniversitesi, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, 2015 - Continues

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Context-aware quantum simulation of a matrix stored in quantum memory**  
DAŞKIN A., Bian T., Xia R., Kais S.  
QUANTUM INFORMATION PROCESSING, vol.18, 2019 (Journal Indexed in SCI)
- **Quantum computing methods for electronic states of the water molecule**  
Bian T., Murphy D., Xia R., Daşkın A., Kais S.  
MOLECULAR PHYSICS, vol.117, pp.2069-2082, 2019 (Journal Indexed in SCI)
- **A generalized circuit for the Hamiltonian dynamics through the truncated series**  
DAŞKIN A., Kais S.  
QUANTUM INFORMATION PROCESSING, vol.17, 2018 (Journal Indexed in SCI)
- **Direct application of the phase estimation algorithm to find the eigenvalues of the Hamiltonians**  
DAŞKIN A., Kais S.  
CHEMICAL PHYSICS, vol.514, pp.87-94, 2018 (Journal Indexed in SCI)
- **An ancilla-based quantum simulation framework for non-unitary matrices**  
DAŞKIN A., Kais S.  
QUANTUM INFORMATION PROCESSING, vol.16, 2017 (Journal Indexed in SCI)
- **Obtaining a linear combination of the principal components of a matrix on quantum computers**  
DAŞKIN A.  
QUANTUM INFORMATION PROCESSING, vol.15, pp.4013-4027, 2016 (Journal Indexed in SCI)
- **Quantum eigenvalue estimation for irreducible non-negative matrices**  
Daskin A.  
INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, vol.14, 2016 (Journal Indexed in SCI)
- **Reducing the number of ancilla qubits and the gate count required for creating large controlled operations**  
Brown K., Daşkın A., Kais S., Dowling J. P.  
QUANTUM INFORMATION PROCESSING, vol.14, pp.891-899, 2015 (Journal Indexed in SCI)
- **Multiple network alignment on quantum computers**

Daskin A., Grama A., Kais S.

QUANTUM INFORMATION PROCESSING, vol.13, pp.2653-2666, 2014 (Journal Indexed in SCI)

- **Quantum random state generation with predefined entanglement constraint**

Daşkın A., Grama A., Kais S.

INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, vol.12, 2014 (Journal Indexed in SCI)

- **A universal quantum circuit scheme for finding complex eigenvalues**

Daskin A., Grama A., Kais S.

QUANTUM INFORMATION PROCESSING, vol.13, pp.333-353, 2014 (Journal Indexed in SCI)

- **Universal programmable quantum circuit schemes to emulate an operator**

Daskin A., Grama A., Kollias G., Kais S.

JOURNAL OF CHEMICAL PHYSICS, vol.137, 2012 (Journal Indexed in SCI)

- **Quantum circuit design for solving linear systems of equations**

Cao Y., Daskin A., Frankel S., Kais S.

MOLECULAR PHYSICS, vol.110, pp.1675-1680, 2012 (Journal Indexed in SCI)

- **Decomposition of unitary matrices for finding quantum circuits: Application to molecular Hamiltonians**

Daskin A., Kais S.

JOURNAL OF CHEMICAL PHYSICS, vol.134, 2011 (Journal Indexed in SCI)

- **Group leaders optimization algorithm**

Daskin A., Kais S.

MOLECULAR PHYSICS, vol.109, pp.761-772, 2011 (Journal Indexed in SCI)

## Articles Published in Other Journals

- **QUANTUM SPECTRAL CLUSTERING THROUGH A BIASED PHASE ESTIMATION ALGORITHM**

DAŞKIN A.

TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.10, pp.24-33, 2020 (Journal Indexed in ESCI)

- **A quantum implementation model for artificial neural networks**

Daskin A.

Quanta, vol.7, pp.7-18, 2018 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- **A Simple Quantum Neural Net with a Periodic Activation Function**

DAŞKIN A.

IEEE International Conference on Systems, Man, and Cybernetics (SMC), Miyazaki, Japan, 7 - 10 October 2018, pp.2887-2891

- **Quantum IsoRank: Efficient Alignment of Multiple Protein-Protein Interaction Networks**

DAŞKIN A.

Uluslararası Bilgisayar Bilimleri ve Mühendisliği Konferansı (UBMK 2016), Tekirdağ, Turkey, 20 October 2016, pp.81-88

- **Quantum Circuit Implementations of the Direct Sum of Unitary Matrices**

Daşkın A.

International Conference on Quantum Science and Applications, Eskişehir, Turkey, 25 May 2016, pp.79

- **Decomposition of unitary matrices for finding quantum circuits**

Daşkın A., Kais S.

ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, Anaheim, Ca, United States Of America, 27 March 2011, vol.241, pp.1

## Supported Projects

Daşkın A., TUBITAK Project, Kuantum Hesaplamanın Bioinformatik ve Kimyadaki Problemlere Uygulanması, 2016 - 2018  
DAŞKIN A., Project Supported by Higher Education Institutions, Üniter Matrislerin Toplamlarının Kuantum Devreleri ile Gerçekleştirilmesi, 2016 - 2016

## Citations

Total Citations (WOS):95

h-index (WOS):5