

# Doç. Dr. Mustafa Sarisaman

## Eğitim:

Post Doktora, KOÇ ÜNİVERSİTESİ, Fen Fakültesi, Fizik, 2010-2017

Doktora, University of Miami, College of Arts and Sciences, Fizik, ABD, 2003-2009

Yüksek Lisans, BOĞAZİÇİ ÜNİVERSİTESİ, Fen Edebiyat, Fizik, 2001-2003

Lisans, BOĞAZİÇİ ÜNİVERSİTESİ, Fen Edebiyat, Fizik, 1996-2001

## Araştırma Alanları:

Genel alan ve parçacık teorisi

Optik

Yoğun Madde 2:Elektronik Yapı, Elektrik, Manyetik ve Optik Özellikler -> Diğer

Atomik Özellikler ve Fotonla Etkileşmeler

Fiziğin Matematiksel Yöntemleri

Kuantum mekaniği, alan teorileri ve özel relativite

## Dersler:

Fizik

Physics

## Akademik Dergi Editör Kurulu Üyelikleri:

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## Akademik Konferans Başkanlıkları:

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## Yayınlar:

### Kitap ve Dergi Editörlükleri:

**Turkoglu A.**, Solo H., (Ed) (2018) Cosmic Knowledge and Innovation Spaces. Routledge

### Makaleler:

Sarisaman M., Tas M., "Broadband coherent perfect absorber with PT-symmetric 2D-materials", ANNALS OF PHYSICS, vol.401, pp.139-148, 2019

Sarisaman M., Tas M., "Broadband and wide-angle invisibility with PT-symmetric 2D-Weyl semimetal", JOURNAL OF APPLIED PHYSICS, vol.126, pp.163102-1-163102-9, 2019

Sarisaman M., Tas M., "PT-symmetric coherent perfect absorber with graphene", JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, vol.35, pp.2423-2432, 2018

Sarisaman M., Tas M., "Unidirectional invisibility and PT symmetry with graphene", PHYSICAL REVIEW B, vol.97, 2018

Dogan K., Mostafazadeh A., Sarisaman M., "Spectral singularities, threshold gain, and output intensity for a slab laser with mirrors", ANNALS OF PHYSICS, vol.392, pp.165-178, 2018

Sarisaman M., "Unidirectional reflectionlessness and invisibility in the TE and TM modes of a PT-symmetric slab system", PHYSICAL REVIEW A, vol.95, 2017

Ghaemi-Dizicheh H., Mostafazadeh A., Sarisaman M., "Nonlinear spectral singularities and laser output intensity", JOURNAL OF OPTICS, vol.19, 2017

Mostafazadeh A., Sarisaman M., "Spectral singularities in the TE and TM modes of a PT-symmetric slab system: Optimal conditions for realizing a CPA-laser", ANNALS OF PHYSICS, vol.375, pp.265-287, 2016

Mostafazadeh A., Sarisaman M., "Lasing-threshold condition for oblique TE and TM modes, spectral singularities, and coherent perfect absorption", PHYSICAL REVIEW A, vol.91, 2015

Sarisaman M., "Euclidean pseudoduality and boundary conditions in sigma models", NUCLEAR PHYSICS B, vol.868, pp.314-327, 2013 (Link)

Mostafazadeh A., Sarisaman M., "Spectral singularities in the surface modes of a spherical gain medium", PHYSICAL REVIEW A, vol.88, 2013

Sarisaman M., "PSEUDODUALITY AND COMPLEX GEOMETRY IN SIGMA MODELS", INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.10, 2013

Mostafazadeh A., Sarisaman M., "Spectral singularities and whispering gallery modes of a cylindrical gain medium", PHYSICAL REVIEW A, vol.87, 2013

Mostafazadeh A., Sarisaman M., "Optical spectral singularities and coherent perfect absorption in a two-layer spherical medium", PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES, vol.468, pp.3224-3246, 2012

Mostafazadeh A., Sarisaman M., "Spectral singularities of a complex spherical barrier potential and their optical realization", PHYSICS LETTERS A, vol.375, pp.3387-3391, 2011

Sarisaman M., "PSEUDODUALITY IN SUPERSYMMETRIC SIGMA MODELS ON SYMMETRIC SPACES", MODERN PHYSICS LETTERS A, vol.26, pp.1825-1841, 2011

Sarisaman M., "PSEUDODUALITY IN SUPERSYMMETRIC SIGMA MODELS", INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.25, pp.2997-3023, 2010

Sarisaman M., "PSEUDODUALITY AND CONSERVED CURRENTS IN SIGMA MODELS", MODERN PHYSICS LETTERS A, vol.24, pp.123-134, 2009

Sarisaman M., "Pseudoduality between symmetric space sigma models", JOURNAL OF MATHEMATICAL PHYSICS, vol.50, 2009

Arık E., Arık M., Sarisaman M., Solmaz L. , Sultansoy S., "Quark Mixing with Four Standard Model Families", Balkan Physics Letters, vol.15N1, pp.9-12, 2007

#### **Kitap ve Kitap Bölümleri:**

**Turkoglu A.** (2011). Uluslararası Alanda Türkiye'nin Rekabet Avantajları, Etkin Yönetim Söyleşileri, Torlak, M.(Ed), Bilim ve Sanat Vakfı, İstanbul

#### **Konferans Bildirileri:**

**Turkoglu A.**, Assessing the Role of Technology Transfer Offices for being an Innovative Galaxy: The Case of Orion, The 75th Knowledge Cities Galaxy Summit, September 24-26, London

#### **Yüksek Lisans ve Bitirme Tezleri:**

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#### **Projeler ve Girişimler:**

"Dogrusal Olmayan Saçılma Kuramı, Dogrusal Olmayan Spektral Tekillikler Ve Tek Yönlü Görünmezlik", TÜBİTAK Projesi, 114F357, Araştırmacı, 2018

"Ters Saçılma Kuramı, Karmaşık Enerjiye Bağlı Potansiyeller, Ve Optik Uygulamaları", TÜBİTAK Projesi, 112T951, Araştırmacı, 2016

"Spektral Tekillikler Ve Optik Sistemlerdeki Uygulamaları", TÜBİTAK Projesi, 110T611, Araştırmacı, 2013

#### **Davetli Konuşmalar:**

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