

Prof. Emre Onur Kahya

Personal Information

Email: eokahya@itu.edu.tr

Education Information

Postgraduate, Computer Science, Canada 2019 - 2020

Doctorate, University Of Florida, Fizik, United States Of America 2002 - 2008

Postgraduate, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 2000 - 2002

Undergraduate, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 1996 - 2000

Foreign Languages

English

Dissertations

Postgraduate, Identifying Electrons with Deep Learning Methods, Université de Montreal, Computer Science, 2020

Doctorate, QUANTUM GRAVITATIONAL CORRECTION TO SCALAR FIELD EQUATIONS DURING INFLATION, University Of Florida, Fizik, 2008

Postgraduate, Higher dimensional metrics of colliding gravitational plane waves, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2002

Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Neural Networks, Physics, Basic Particles and Areas, General Theory of Particles and Fields, Natural Sciences

Academic Titles / Tasks

Professor, Istanbul Technical University, Fen-Edebiyat, Fizik Mühendisliği, 2018 - Continues

Associate Professor, Istanbul Technical University, Fizik Mühendisliği Bölümü, 2012 - 2018

Lecturer PhD, Istanbul Technical University, Fizik Mühendisliği Bölümü, 2012 - 2012

Lecturer PhD, Friedrich-Schiller-Universität Jena, Fizik, 2009 - 2012

Lecturer PhD, Koç Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2008 - 2009

Research Assistant, University Of Florida, Department Of Physics, 2002 - 2008

Research Assistant, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2000 - 2002

Courses

Group Theory II, Doctorate, 2016 - 2017

Electromagnetic Theory, Undergraduate, 2016 - 2017

Group Theory I, Doctorate, 2015 - 2016

Cosmology II, Doctorate, 2013 - 2014

Cosmology I, Doctorate, 2012 - 2013

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

- I. **On the classification and feature relevance of multiband light curves**
Edeş Huyal F. K. , Çataltepe Z., Kahya E. O.
Astronomical Journal, vol.161, no.4, 2021 (Journal Indexed in SCI)
- II. **Superconformal generalizations of auxiliary vector modified polynomial $f(R)$ theories**
Boran S., Kahya E. O. , Özdemir N., Özkan M., Zorba U.
JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS, no.4, 2020 (Journal Indexed in SCI)
- III. **Constraints on differential Shapiro delay between neutrinos and photons from IceCube-170922A**
Boran S., Desai S., Kahya E. O.
EUROPEAN PHYSICAL JOURNAL C, vol.79, no.3, 2019 (Journal Indexed in SCI)
- IV. **Loop corrections to primordial non-Gaussianity**
Boran S., Kahya E. O.
PHYSICAL REVIEW D, vol.97, no.4, 2018 (Journal Indexed in SCI)
- V. **GW170817 falsifies dark matter emulators**
Boran S., Desai S., Kahya E. O. , Woodard R. P.
PHYSICAL REVIEW D, vol.97, no.4, 2018 (Journal Indexed in SCI)
- VI. **Galactic Shapiro delay to the Crab pulsar and limit on weak equivalence principle violation**
Desai S., Kahya E. O.
EUROPEAN PHYSICAL JOURNAL C, vol.78, no.2, 2018 (Journal Indexed in SCI)
- VII. **One loop corrected conformally coupled scalar mode equations during inflation**
Boran S., Kahya E. O. , Park S.
PHYSICAL REVIEW D, vol.96, no.10, 2017 (Journal Indexed in SCI)
- VIII. **Quantum gravity corrections to the conformally coupled scalar self-mass-squared on de Sitter background. II. Kinetic conformal cross terms**
BORAN S., Kahya E. O. , Park S.
PHYSICAL REVIEW D, vol.96, no.2, 2017 (Journal Indexed in SCI)
- IX. **Broken scale invariance, alpha-attractors and vector impurity**
Akarsu Ö., BORAN S., Kahya E. O. , Özdemir N., Özkan M.
EUROPEAN PHYSICAL JOURNAL C, vol.77, no.5, 2017 (Journal Indexed in SCI)
- X. **Constraints on frequency-dependent violations of Shapiro delay from GW150914**
Kahya E. O. , DESAI S.
PHYSICS LETTERS B, vol.756, pp.265-267, 2016 (Journal Indexed in SCI)
- XI. **Galactic one-way Shapiro delay to PSR B1937+21**
Desai S., Kahya E. O.
MODERN PHYSICS LETTERS A, vol.31, no.13, 2016 (Journal Indexed in SCI)
- XII. **Constructing an inflaton potential by mimicking modified Chaplygin gas**
Kahya E. O. , POURHASSAN B., URAZ S.
PHYSICAL REVIEW D, vol.92, no.10, 2015 (Journal Indexed in SCI)
- XIII. **The universe dominated by the extended Chaplygin gas**
Kahya E. O. , POURHASSAN B.
MODERN PHYSICS LETTERS A, vol.30, no.13, 2015 (Journal Indexed in SCI)
- XIV. **Higher order corrections of the extended Chaplygin gas cosmology with varying G and Lambda**
Kahya E. O. , KHURSHUDYAN M., POURHASSAN B., MYRZAKULOV R., PASQUA A.
EUROPEAN PHYSICAL JOURNAL C, vol.75, no.2, 2015 (Journal Indexed in SCI)
- XV. **Quantum gravity corrections to the conformally coupled scalar self-mass-squared on de Sitter**

background

Boran S., Kahya E. O. , PARK S.

PHYSICAL REVIEW D, vol.90, no.12, 2014 (Journal Indexed in SCI)

- XVI. **Observational constraints on the extended Chaplygin gas inflation**
Kahya E. O. , POURHASSAN B.
ASTROPHYSICS AND SPACE SCIENCE, vol.353, no.2, pp.677-682, 2014 (Journal Indexed in SCI)
- XVII. **Interacting two-component fluid models with varying EoS parameter**
Khurshudyan M., POURHASSAN B., Kahya E. O.
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.11, no.6, 2014 (Journal Indexed in SCI)
- XVIII. **Extended Chaplygin gas model**
Pourhassan B., Kahya E. O.
RESULTS IN PHYSICS, vol.4, pp.101-102, 2014 (Journal Indexed in SCI)
- XIX. **FRW Cosmology with the Extended Chaplygin Gas**
Pourhassan B., Kahya E. O.
ADVANCES IN HIGH ENERGY PHYSICS, 2014 (Journal Indexed in SCI)
- XX. **Testing a Dilaton Gravity Model Using Nucleosynthesis**
Boran S., Kahya E. O.
ADVANCES IN HIGH ENERGY PHYSICS, 2014 (Journal Indexed in SCI)
- XXI. **The coincidence limit of the graviton propagator in de Donder gauge on de Sitter background**
Kahya E. O. , Miao S. P. , WOODARD R. P.
JOURNAL OF MATHEMATICAL PHYSICS, vol.53, no.2, 2012 (Journal Indexed in SCI)
- XXII. **A useful guide for gravitational wave observers to test modified gravity models**
Kahya E. O.
PHYSICS LETTERS B, vol.701, no.3, pp.291-295, 2011 (Journal Indexed in SCI)
- XXIII. **The zeta-zeta correlator is time dependent**
Kahya E. O. , Önemli V. K. , Woodard R. P.
PHYSICS LETTERS B, vol.694, no.2, pp.101-107, 2010 (Journal Indexed in SCI)
- XXIV. **Completely regular quantum stress tensor with $w < -1$**
Kahya E. O. , Onemli V. K. , Woodard R. P.
PHYSICAL REVIEW D, vol.81, no.2, 2010 (Journal Indexed in SCI)
- XXV. **A decisive test to confirm or rule out the existence of dark matter emulators using gravitational wave observations**
Kahya E. O.
CLASSICAL AND QUANTUM GRAVITY, vol.25, no.18, 2008 (Journal Indexed in SCI)
- XXVI. **Reduced time delay for gravitational waves with dark matter emulators**
Desai S., Kahya E. O. , Woodard R. P.
PHYSICAL REVIEW D, vol.77, no.12, 2008 (Journal Indexed in SCI)
- XXVII. **Scalar field equations from quantum gravity during inflation**
Kahya E. O. , WOODARD R. P.
PHYSICAL REVIEW D, vol.77, no.8, 2008 (Journal Indexed in SCI)
- XXVIII. **Quantum gravity corrections to the one loop scalar self-mass during inflation**
Kahya E. O. , Woodard R. P.
PHYSICAL REVIEW D, vol.76, no.12, 2007 (Journal Indexed in SCI)
- XXIX. **A generic test of modified gravity models which emulate dark matter**
Kahya E. O. , WOODARD R. P.
PHYSICS LETTERS B, vol.652, pp.213-216, 2007 (Journal Indexed in SCI)
- XXX. **Quantum stability of a $w < -1$ phase of cosmic acceleration**
Kahya E. O. , ONEMLI V. K.
PHYSICAL REVIEW D, vol.76, no.4, 2007 (Journal Indexed in SCI)
- XXXI. **One loop corrected mode functions for scalar QED during inflation**

Kahya E. O. , WOODARD R. P.

PHYSICAL REVIEW D, vol.74, no.8, 2006 (Journal Indexed in SCI)

XXXII. Charged scalar self-mass during inflation

Kahya E. O. , WOODARD R.

PHYSICAL REVIEW D, vol.72, no.10, 2005 (Journal Indexed in SCI)

XXXIII. Higher dimensional metrics of colliding gravitational plane waves

Gurses M., Kahya E. O. , KARASU A.

PHYSICAL REVIEW D, vol.66, no.2, 2002 (Journal Indexed in SCI)

Supported Projects

Kahya E. O. , Edeş Huyal F. K. , Project Supported by Higher Education Institutions, Yapay Öğrenmede Optimizasyon Yöntemleri, 2019 - Continues

Özkan M., Kahya E. O. , TUBITAK Project, Enflasyon ve Süpersimetrik Atraktörler, 2017 - 2020

Kahya E. O. , Project Supported by Higher Education Institutions, Quantum Effects on Conformally Coupled Scalars during Inflation, 2016 - 2018

Kahya E. O. , Project Supported by Higher Education Institutions, İlksel Non-Gaussianite'ye İlmek Katkıları, 2016 - 2018

Kahya E. O. , TUBITAK Project, 1001 Projesi İlk Dönem Evrendeki Kuantum Etkileri Proje No 112T817, 2012 - 2015

Kahya E. O. , Horizon Europe Project, QFT&Cosmo, 2009 - 2012

Citations

Total Citations (WOS):945

h-index (WOS):18

Awards

Kahya E. O. , Araştırma Teşvik Ödülü, Odtü Mustafa Paralar Vakfı, December 2017

Kahya E. O. , TÜBİTAK Bilim Teşvik Ödülü, Tübitak, December 2016

Kahya E. O. , Yılın Bilim İnsanı Ödülü, Bilim Kahramanları Derneği, June 2015

Kahya E. O. , Best reviewer of the year, Elsevier, Astroparticle Physics, June 2010