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Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: A-7292-2011

Yoksis Researcher ID: 23099

Education Information

Doctorate, Canakkale Onsekiz Mart University, Fen Bilimleri Ens., Fizik, Turkey 2002 - 2007

Postgraduate, Canakkale Onsekiz Mart University, Fen Bilimleri Ens., Fizik, Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Fen Edebiyat Fak., Fizik, Turkey 1995 - 1999

Undergraduate, Middle East Technical University, Ydyo, Hazırlık, Turkey 1994 - 1995

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Güneş Kabuğundaki Konvektif Olayların Manyetohidrodinamik (MHD) Yaklaşımıla Modellemesi , Canakkale Onsekiz Mart University, Fizik, 2007

Postgraduate, Plazmada Gravitasyonel Kararsızlıklar , Canakkale Onsekiz Mart University, Fen Bilimleri Ens., Fizik, 2002

Research Areas

Physics, Astronomy and Astrophysics, Sun and Solar Systems, Physics of Plasmas

Academic Titles / Tasks

Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2018 - Continues

Associate Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2012 - 2018

Assistant Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2009 - 2012

Research Assistant PhD, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2007 - 2009

Research Assistant, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2000 - 2007

Academic and Administrative Experience

Head of Department, Çanakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2021 - 2022

Head of Department, Çanakkale Onsekiz Mart University, Fen Fakültesi, Fizik Bölümü, 2019 - 2021

Çanakkale Onsekiz Mart University, Fen Fakültesi, 2010 - 2019

Çanakkale Onsekiz Mart University, Fen Fakültesi, Fizik Bölümü, 2013 - 2015

Advising Theses

Çavuş H., Koronal Kütle Atımlarından Sonra Gezegenler Arası Ortamda Oluşan Şok Dalgalarının WIND Uydusu Verileriyle İncelenmesi, Postgraduate, G.Çağlar(Student), 2021

Çavuş H., The investigation of the relationship between the physical parameters of sunspots and solar coronal mass ejections using artificial intelligence algorithms , Postgraduate, A.Ur(Student), 2021

Çavuş H., Koronal kütle atımlarından sonra gezegenler arası ortamda oluşan şok dalgalarının ace uydu verileriyle incelenmesi, Postgraduate, G.ARAZ(Student), 2021

Çavuş H., Manyetohidrodinamik Rayleigh-Taylor kararsızlığı ve Güneş için incelenmesi, Postgraduate, F.KARA(Student), 2018

Çavuş H., Hidrodinamik Şok Dalgalarında Viskozite Etkisinin Araştırılması ve Sonuçların Koronal Kütle Atımlarından Sonra Oluşan Şok Dalgalarına Uygulanması, Doctorate, A.Kurt(Student), 2016

Çavuş H., Güneş Rüzgarlarının İki Boyutlu Manyetohidrodinamik Modellenmesi, Postgraduate, N.İLBİKÇİ(Student), 2013

Çavuş H., Manyetohidrodinamik Kelvin-Helmholtz Kararsızlığı ve Koronal Kütle Atımları için İncelenmesi, Postgraduate, D.KAZKAPAN(Student), 2012

Çavuş H., Plazma fizигinde manyetohidrodinamik şok dalgaları ve eğik yoğunluk arayüzlerinde kırılmaları, Postgraduate, B.Emre(Student), 2011

Published journal articles indexed by SCI, SSCI, and AHCI

I. Prediction of the SYM-H Index Using a Bayesian Deep Learning Method With Uncertainty Quantification

Abduallah Y., Alabaid K. A., Wang J. T. L., Wang H., Jordanova V. K., Yurchyshyn V., ÇAVUŞ H., Jing J. Space Weather, vol.22, no.2, 2024 (SCI-Expanded)

II. Estimating Coronal Mass Ejection Mass and Kinetic Energy by Fusion of Multiple Deep-learning Models

Alabaid K. A., Abduallah Y., Wang J. T. L., Wang H., Fan S., Li J., ÇAVUŞ H., Yurchyshyn V. Astrophysical Journal Letters, vol.958, no.2, 2023 (SCI-Expanded)

III. Predicting CME arrival time through data integration and ensemble learning

Alabaid K. A., Abduallah Y., Wang J. T. L., Wang H., Jiang H., Xu Y., Yurchyshyn V., Zhang H., ÇAVUŞ H., Jing J. FRONTIERS IN ASTRONOMY AND SPACE SCIENCES, vol.9, 2022 (SCI-Expanded)

IV. Can Solar Cycle 25 Be a New Dalton Minimum?

Coban G. C., Raheem A., ÇAVUŞ H., Asghari-Targhi M. SOLAR PHYSICS, vol.296, no.11, 2021 (SCI-Expanded)

V. An investigation of the causal relationship between sunspot groups and coronal mass ejections by determining source active regions

Raheem A., ÇAVUŞ H., Coban G. C., KINACI A. C., Wang H., Wang J. T. L. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.506, no.2, pp.1916-1926, 2021 (SCI-Expanded)

VI. Correlation between sunspots and interplanetary shocks measured by ACE during 1998-2014 and some estimations for the 22nd solar cycle and the years between 2015 and 2018 with artificial neural network using the Cavus 2013 model

ÇAVUŞ H., Araz G., Coban G. C., Raheem A., Karafistan A. I. ADVANCES IN SPACE RESEARCH, vol.65, no.3, pp.1035-1047, 2020 (SCI-Expanded)

VII. A viscous magnetohydrodynamic Kelvin-Helmholtz instability in the interface of two fluid layer: Part

- II. An application to the atmosphere of the Sun**
- ÇAVUŞ H., Hoshoudy G. A.
ASTROPHYSICS AND SPACE SCIENCE, vol.364, no.7, 2019 (SCI-Expanded)
- VIII. A viscous magnetohydrodynamic Kelvin-Helmholtz instability in the interface of two fluid layers: Part I. Basic mechanism**
- Hoshoudy G. A., ÇAVUŞ H., Mahdy A.
ASTROPHYSICS AND SPACE SCIENCE, vol.364, no.5, 2019 (SCI-Expanded)
- IX. Shock Wave Interactions with Viscosity Observed after the Coronal Mass Ejection Activities Occurred on December 18, 1999 and April 4, 2001**
- ÇAVUŞ H., KARAFİSTAN A.
Asian Journal Of Mathematics, vol.1, no.4, pp.1-11, 2018 (SCI-Expanded)
- X. Kelvin-Helmholtz instability of two finite-thickness fluid layers with continuous density and velocity profiles**
- Hoshoudy G. A., ÇAVUŞ H.
JOURNAL OF ASTROPHYSICS AND ASTRONOMY, vol.39, no.3, 2018 (SCI-Expanded)
- XI. Effect of Viscosity on Shock Waves Observed After Two Different Coronal Mass Ejection Activities CME20/11/2003 and CME11/04/2010**
- Cavus H., Zeybek G.
ASTROPHYSICS, vol.60, no.1, pp.100-110, 2017 (SCI-Expanded)
- XII. Treatment of Viscosity in the Shock Waves Observed After Two Consecutive Coronal Mass Ejection Activities CME08/03/2012 and CME15/03/2012**
- ÇAVUŞ H.
EARTH MOON AND PLANETS, vol.118, pp.91-101, 2016 (SCI-Expanded)
- XIII. On the variations of some physical quantities above the sunspot bands near the equatorial plane**
- Cavus H., Ilbikci N.
ASTROPHYSICAL BULLETIN, vol.71, no.2, pp.241-248, 2016 (SCI-Expanded)
- XIV. Effects of viscosity on the behavior of entropy change in the shock wave that occurred after the December 13, 2006 coronal mass ejection**
- Cavus H., Kurt A.
ASTROPHYSICAL BULLETIN, vol.70, no.2, pp.220-225, 2015 (SCI-Expanded)
- XV. On the viscosity effects in the shock wave observed in the solar wind after the December 13, 2006 coronal mass ejection**
- Cavus H.
ASTROPHYSICAL BULLETIN, vol.70, no.1, pp.117-122, 2015 (SCI-Expanded)
- XVI. Magnetic Kelvin-Helmholtz instability in the solar atmosphere**
- ÇAVUŞ H., KAZKAPAN D.
NEW ASTRONOMY, vol.25, pp.89-94, 2013 (SCI-Expanded)
- XVII. On the Effects of Viscosity on the Shock Waves for a Hydrodynamical Case-Part I: Basic Mechanism**
- Cavus H.
ADVANCES IN ASTRONOMY, vol.2013, 2013 (SCI-Expanded)
- XVIII. On the effect of magnetic field on the low-l solar p-mode oscillations**
- ÇAVUŞ H., Karafistan A. I.
NEW ASTRONOMY, vol.15, no.6, pp.569-574, 2010 (SCI-Expanded)
- XIX. On the Modelling of Rotational Effects in the Lower Convective Region of the Sun**
- ÇAVUŞ H., Karafistan A. I.
BRAZILIAN JOURNAL OF PHYSICS, vol.40, no.2, pp.160-165, 2010 (SCI-Expanded)
- XX. A magnetohydrodynamic model applied to the lower convective region in the Sun including the radial components of magnetic field and flow**
- Cavus H.
NEW ASTRONOMY, vol.14, no.8, pp.700-707, 2009 (SCI-Expanded)
- XXI. Modelling the magnetic field and differential rotation effects for the vicinity of the base of**

convective zone in the Sun

Cavus H.

NEW ASTRONOMY, vol.14, no.4, pp.349-355, 2009 (SCI-Expanded)

XXII. A magnetohydrodynamic model applied to the lower convective region in the Sun

Cavus H., KARAFISTAN A. I.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.380, no.1, pp.142-148, 2007 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. "Koronal Kütle Atımlarının Uzay Havası Açısından İncelenmesi
ÇAVUŞ H.
YEFAK 2021, 01 February 2021
- II. Predicting the physical parameters of interplanetary shock waves using Artificial Neural Networks trained on NASA's ACE and WIND spacecraft
ÇOBAN G. Ç., RAHEEM A., ÇAVUŞ H.
4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), 20 November 2020
- III. Modelling of interplanetary shocks measured by ACE using a hydrodynamical model (Cavus2013) and some estimations with artificial neural network
ÇAVUŞ H., ÇOBAN G. Ç., RAHEEM A.
European Space Weather Symposium (ESWS)-2020, 02 October 2020
- IV. Correlation between Sunspots and Interplanetary Shocks measured by WIND and Some Estimations for the 22nd Solar Cycle using Artificial Neural Network
ÇOBAN G. Ç., RAHEEM A., ÇAVUŞ H.
European Space Weather Symposium (ESWS)-2020, 02 October 2020
- V. An investigation of the causal relationship between sunspot groups and coronal mass ejections (CMEs)
RAHEEM A., ÇOBAN G. Ç., ÇAVUŞ H.
European Space Weather Symposium (ESWS)-2020, 02 October 2020
- VI. TÜRKİYE ÜNİVERSİTELERİNDE (2000 YILINDAN ÖNCЕ KURULAN) AKADEMİK UNVANLARIN ÜNİVERSİTE SIRALAMALARINA ETKİSİ
ÇAVUŞ C. Z., ÇAVUŞ H.
II. International Congress of New Approaches and Trends in Social Sciences, Kocaeli, Turkey, 8 - 09 November 2018, pp.94-112
- VII. Türkiye Üniversitelerinde (2000 Yılından Önce Kurulan) Akademik Unvanların Üniversite Sıralamalarına Etkisi
Çavuş C. Z., Çavuş H.
ICQH2017 International Conference on Quality in Higher Education, Sakarya, Turkey, 7 - 08 November 2018
- VIII. TÜRKİYE'DE 2000 YILINDAN SONRA KURULAN ÜNİVERSİTELER İÇİN AKADEMİK UNVANLARIN ÜNİVERSİTE SIRALAMALARINA ETKİSİ
ÇAVUŞ H., ÇAVUŞ C. Z.
II. International Congress of New Approaches and Trends in Social Sciences, Kocaeli, Turkey, 8 - 09 November 2018, pp.303-317
- IX. Türkiye'de 2000 Yılından Sonra Kurulan Üniversiteler İçin Akademik Unvanların Üniversite Sıralamalarına Etkisi
Çavuş H., Çavuş C. Z.
ICQH2017 International Conference on Quality in Higher Education, Sakarya, Turkey, 7 - 08 November 2018
- X. Koronal Kütle Atımlarından Oluşan Şok Dalgalarının İncelenmesi
ÇAVUŞ H.
Ulusal Astronomi Kongresi 2018, Turkey, 2 - 07 September 2018

- XI. **Güneş Atmosferinde Ekvator Düzlemi Civarında Bazı Fiziksel Parametrelerin Değişimi**
ÇAVUŞ H.
 Ulusal Astronomi Kongresi 2016, Erzurum, Turkey, 1 - 06 September 2016
- XII. **2010-2017 Yılları Arasında Temel Bilim Bölümelerinin Kontenjanları Üzerine Bir Değerlendirme**
ÇAVUŞ H.
 International Conference on Quality in Higher Education 2017, 7 - 08 December 2017
- XIII. **Researchgate Visibility of Universities in Turkey (Founded after 2000)**
ÇAVUŞ H., ÇAVUŞ C. Z.
 International Conference on Quality in Higher Education 2017, 7 - 08 December 2017
- XIV. **Researchgate Visibility of Universities in Turkey (Founded Before 2000)**
ÇAVUŞ C. Z., ÇAVUŞ H.
 International Conference on Quality in Higher Education 2017, 7 - 08 December 2017
- XV. **TÜRKİYE'DEKİ ÜNİVERSİTELERİN RESEARCHGATE AÇISINDAN GÖRÜNÜRLÜĞÜ (2000 YILINDAN SONRA KURULAN)**
ÇAVUŞ H., ÇAVUŞ C. Z.
 ICQH 2017 International Conference on Quality in Higher Education, Sakarya, Turkey, 7 - 08 December 2017
- XVI. **TÜRKİYE'DEKİ ÜNİVERSİTELERİN RESEARCHGATE GÖRÜNÜRLÜK ANALİZİ (2000 YILINDAN ÖNCE KURULAN)**
ÇAVUŞ C. Z., ÇAVUŞ H.
 ICQH 2017 International Conference on Quality in Higher Education, Sakarya, Turkey, 7 - 08 December 2017
- XVII. **13/12/2006 Koronal Kütle Atımı (CME) Sonrası Meydana Gelen Şok Dalgası İçin Viskozite Etkisi Üzerine Araştırmalar**
KURT A., ÇAVUŞ H.
 Adım Fizik Günleri 6, Balıkesir, Turkey, 19 - 21 July 2017
- XVIII. **SON YILLARDA TEMEL BİLİMLERDE OLUŞAN ÜNİVERSİTE SINAVLARINDAKİ KONTENJAN PROBLEMİ VE ÇÖZÜM ÖNERİLERİ**
ÇAVUŞ H., DEMİRCAN O.
 International Conference on Quality in Higher Education, 24 - 25 November 2016
- XIX. **CUMHURİYETİN 100 YILINDA TEMEL BİLİM EĞİTİMİ NASIL OLMALI SOUNLAR VE ÇÖZÜMLER**
DEMİRCAN O., ÇAVUŞ H.
 ULUSLARARASI ÇAĞDAŞ EĞİTİM ARAŞTIRMALARI KONGRESİ, 29 - 02 November 2016
- XX. **Plazma Fiziğinde Manyetohidrodinamik Şok Dalgalarının Yoğunluk Arayüzlerinde Kırılmaları**
ÇAVUŞ H., ÇİĞRIKÇİ E.
 Turkish Physical Society 28th International Physics Congress (September 6-9, 2011), 09 September 2011, vol.1
- XXI. **Some MHD solutions for the bottom of the solar convective layer**
ÇAVUŞ H., Karafistan A. I.
 Workshop on Solar and Stellar Physics through Eclipses, Antalya, Turkey, 27 - 29 March 2006, vol.370, pp.74-75
- XXII. **Nonlinear magneto-hydrodynamical modeling of solar envelope**
ÇAVUŞ H., KARAFISTAN A. I.
 7th International Conference of the Hellenic-Astronomical-Society, Lixourion, Greece, 8 - 11 September 2006,
 vol.848, pp.207-208

Metrics

Publication: 44

Citation (WoS): 46

Citation (Scopus): 57

H-Index (WoS): 4

H-Index (Scopus): 4

Non Academic Experience

Non-profit Organisation, Türk Fizik Derneği, Türk Fizik Derneği

Non-profit Organisation, Türk Astronomi Derneği, Türk Astronomi Derneği