

# Prof. MELİKE AFŞAR

## Personal Information

**Office Phone:** [+90 232 311 2847](tel:+902323112847)

**Email:** [melike.afsar@ege.edu.tr](mailto:melike.afsar@ege.edu.tr)

**Web:** <https://avesis.ege.edu.tr/melike.afsar>

## Education Information

Post Doctorate, The University Of Texas At Austin, Science Faculty, Astronomy Department, United States Of America  
2018 - 2018

Post Doctorate, The University Of Texas At Austin, Science Faculty, Astronomy Department, United States Of America  
2010 - 2011

Doctorate, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Astronomi Ve Uzay Bilimleri, Turkey 2000 - 2006

Doctorate, Space Telescope Science Institute, Baltimore, Md, Usa, United States Of America 2003 - 2004

Post Graduate, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Astronomi Ve Uzay Bilimleri, Turkey 1997 - 2000

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Gezegenimsi bulutsu çekirdeklerindeki örten çift yıldızlar, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Astronomi Ve Uzay Bilimleri (Y) (Tezli), 2006

Post Graduate, Gezegenimsi bulutsu çekirdeklerindeki çift yıldızlar, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Astronomi Ve Uzay Bilimleri Anabilim Dalı, 2000

## Research Areas

Physics, Astronomy and Astrophysics, Stars, Natural Sciences

## Academic Titles / Tasks

Professor, Ege Üniversitesi, Fen Fakültesi, Astronomi Ve Uzay Bilimleri Bölümü, 2015 - Continues

Associate Professor, Ege Üniversitesi, Fen Fakültesi, Astronomi Ve Uzay Bilimleri Bölümü, 2013 - 2015

Assistant Professor, Ege Üniversitesi, Fen Fakültesi, Astronomi Ve Uzay Bilimleri Bölümü, 2010 - 2013

Research Assistant, Ege Üniversitesi, Fen Fakültesi, Astronomi Ve Uzay Bilimleri Bölümü, 1999 - 2010

## Professional Experience

Deputy Head of Department, Ege Üniversitesi, Fen Fakültesi, Astronomi Ve Uzay Bilimleri Bölümü, 2015 - 2018

Fakülte Yönetim Kurulu Üyesi, Ege Üniversitesi, Gözlemevi Uygulama Ve Araştırma Merkezi, 2009 - 2016

## Courses

SOLAR SYSTEM, Under Graduate, 2017 - 2018

Solar System, Under Graduate, 2016 - 2017

ASTRONOMİDE TAYFİLİM, Post Graduate, 2016 - 2017

## Jury Memberships

Doctorate, Doctorate, İstanbul Üniversitesi, December, 2019

Associate Professor Exam, Associate Professor Exam, Ege University, March, 2019

Doctoral Examination, Doktora Yeterlilik Jürisi, ANKARA ÜNİVERSİTESİ, February, 2018

Doctorate, Tez Savunma Jürisi, EGE ÜNİVERSİTESİ, July, 2017

Doctorate, Tez Savunma Jürisi, EGE ÜNİVERSİTESİ, November, 2016

Doctorate, Tez Savunma Jürisi, EGE ÜNİVERSİTESİ, November, 2016

Academic Staff Examination, Yabancı Dil Sınavı Jürisi, EGE ÜNİVERSİTESİ, January, 2016

Academic Staff Examination, Yabancı Dil Sınavı Jürisi, EGE ÜNİVERSİTESİ, June, 2015

Post Graduate, Tez Savunma Jürisi, EGE ÜNİVERSİTESİ, January, 2013

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

- **Chemical abundances of open clusters from high-resolution infrared spectra - I. NGC 6940**  
Topcu G. B. , AFŞAR M., Sneden C., Pilachowski C. A. , Denissenkov P. A. , VandenBerg D. A. , Strickland E., ÖZDEMİR S., Mace G. N. , Kim H., et al.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.485, pp.4625-4640, 2019 (Journal Indexed in SCI)
- **High-resolution infrared spectroscopy of field Red Horizontal Branch stars**  
AFŞAR M., Sneden C., BOZKURT Z., TOPCU G. B. , Mace G., KİM H., Jaffe D. T.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1174, pp.3-5, 2018 (Journal Indexed in SCI)
- **Aliphatic hydrocarbon content of interstellar dust**  
GUNAY B., SCHMIDT T. W. , BURTON M. G. , AFŞAR M., KRECHKIVSKA O., NAUTA K., KABLE S. H. , RAWAL A.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.479, pp.4336-4344, 2018 (Journal Indexed in SCI)
- **Chemical Compositions of Evolved Stars from Near-infrared IGRINS High-resolution Spectra. I. Abundances in Three Red Horizontal Branch Stars**  
AFŞAR M., Sneden C., WOOD M. P. , LAWLER J. E. , BOZKURT Z., TOPCU G. B. , MACE G. N. , KİM H., JAFFE D. T.  
ASTROPHYSICAL JOURNAL, vol.865, 2018 (Journal Indexed in SCI)
- **A Spectroscopic Survey of Field Red Horizontal-branch Stars**  
AFŞAR M., BOZKURT Z., TOPCU G. B. , CASETTI-DINESCU D., Sneden C., SEHITOGLU G.  
ASTRONOMICAL JOURNAL, vol.155, 2018 (Journal Indexed in SCI)
- **The chemical compositions and evolutionary status of red giants in the open cluster NGC 6940**  
TOPCU G. B. , AFŞAR M., SNEDEN C.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.463, pp.580-597, 2016 (Journal Indexed in SCI)
- **THE CHEMICAL COMPOSITIONS OF VERY METAL-POOR STARS HD 122563 AND HD 140283: A VIEW FROM THE INFRARED**  
AFŞAR M., Sneden C., FREBEL A., KİM H., MACE G. N. , KAPLAN K. F. , LEE H., OH H., OH J. S. , PAK S., et al.  
ASTROPHYSICAL JOURNAL, vol.819, 2016 (Journal Indexed in SCI)
- **Line strengths of rovibrational and rotational transitions in the X-2 Pi ground state of OH**  
Brooke J. S. A. , Bernath P. F. , Western C. M. , Sneden C., AFŞAR M., Li G., Gordon I. E.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.168, pp.142-157, 2016 (Journal Indexed in SCI)
- **The chemical compositions and evolutionary status of red giants in the open cluster NGC 752**  
Topcu G. B. , AFŞAR M., Schaeuble M., Sneden C.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.446, pp.3562-3578, 2015 (Journal Indexed in SCI)

- **CHEMICAL COMPOSITIONS OF THIN-DISK, HIGH-METALLICITY RED HORIZONTAL-BRANCH FIELD STARS**

AFŞAR M., SNEDEN C., FOR B. -.

ASTRONOMICAL JOURNAL, vol.144, 2012 (Journal Indexed in SCI)

- **BINARY CENTRAL STARS OF PLANETARY NEBULAE DISCOVERED THROUGH PHOTOMETRIC VARIABILITY. II. MODELING THE CENTRAL STARS OF NGC 6026 AND NGC 6337**

Hillwig T. C. , BOND H. E. , AFŞAR M., DE MARCO O.

ASTRONOMICAL JOURNAL, vol.140, pp.319-327, 2010 (Journal Indexed in SCI)

- **Spectroscopic and photometric observations of the selected Algol-type binaries\*-IV. V799 Cassiopeiae, BX Piscium and HD 172189**

IBANOGLU C., Evren S., TAŞ G., ÇAKIRLI Ö., BOZKURT Z., AFŞAR M., SİPAHİ E., DAL H. A. , ÖZDARCAN O., Camurdan D. Z. , et al.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.392, pp.757-767, 2009 (Journal Indexed in SCI)

- **Two-colour photometry of the binary planetary nebula nuclei UU Sagitte and V477 Lyrae: oversized secondaries in post-common-envelope binaries**

AFŞAR M., IBANOGLU C.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.391, pp.802-814, 2008 (Journal Indexed in SCI)

- **Spectroscopic and photometric observations of the selected Algol-type binaries - III. LL Aquarii, MP Delphini and NSV 20913**

IBANOGLU C., Evren S., TAŞ G., ÇAKIRLI Ö., BOZKURT Z., AFŞAR M., SİPAHİ E., DAL H. A. , ÖZDARCAN O., Camurdan D., et al.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.390, pp.958-968, 2008 (Journal Indexed in SCI)

- **Spectroscopic and photometric observations of the selected Algol-type binaries -II. V2080 Cygni and V2365 Ophiuchi**

IBANOGLU C., Evren S., TAŞ G., ÇAKIRLI Ö., BOZKURT Z., AFŞAR M., FRASCA A., SİPAHİ E., DAL H. A. , Oezdarcan O., et al.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.384, pp.331-342, 2008 (Journal Indexed in SCI)

- **Spectroscopic and photometric observations of selected Algol-type binaries - I. V1665 Aquilae and AG Arietis**

IBANOGLU C., Evren S., Tas G., Cakirli O., Bozkurt Z., Afsar M., FRASCA A., Sipahi E., Dal H. A. , Oezdarcan O., et al.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.380, pp.1422-1432, 2007 (Journal Indexed in SCI)

- **A young stellar cluster surrounding the peculiar eruptive variable V838 Monocerotis**

Afsar M., BOND H. E.

ASTRONOMICAL JOURNAL, vol.133, pp.387-393, 2007 (Journal Indexed in SCI)

- **Long-term luminosity variations and period changes in CG Cygni**

Afşar M., Heckert P., İbanoğlu C.

ASTRONOMY & ASTROPHYSICS, vol.420, pp.595-604, 2004 (Journal Indexed in SCI Expanded)

- **Alfvén waves in the inner polar coronal hole**

PEKUNLU E., Bozkurt Z., Afsar M., SOYDUGAN E., SOYDUGAN F.

MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.336, pp.1195-1200, 2002 (Journal Indexed in SCI)

## Articles Published in Other Journals

- **Orbital parameters of the close binary central stars of NGC 6337 and NGC 6026**

Hillwig T. C. , Bond H. E. , AFŞAR M.

Proceedings of the International Astronomical Union, vol.2, pp.421-422, 2006 (Refereed Journals of Other Institutions)

- **Three-colour Photometry of IN Comae**

AFŞAR M., IBANOĞLU C.

Information Bulletin on Variable Stars, no.4980, pp.1-2, 2000 (Refereed Journals of Other Institutions)

- **Broad Band Photometry of CG Cygni**

AFŞAR M., IBANOĞLU C.

Information Bulletin on Variable Stars, no.4979, pp.1-2, 2000 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- **Field Red Horizontal Branch Star Chemical Compositions from High Resolution Infrared Spectra**

SNEDEN C., AFŞAR M., BOZKURT Z., BÖCEK TOPCU G., MACE G. N. , KİM H., KAPLAN K., KİDDER B., MCLANE J.

230th American Astronomical Society Meeting, 4 - 08 Haziran 2017

- **Stars and their Environments at High Resolution with IGRINS**

MACE G., JAFFE D., KAPLAN K., KİDDER B., OH H., Sneden C., AFŞAR M.

The 19th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, 6 - 10 Haziran 2016

- **300 Nights of Science with IGRINS at McDonald Observatory**

Mace G. N. , KİM H., Jaffe D. T. , PARK C., Lee J., KAPLAN K., YU Y. S. , Yuk I., Chun M., PAK S., et al.

Conference on Ground-Based and Airborne Instrumentation for Astronomy VI, Edinburgh, Saint Helena, 26 - 30 Haziran 2016, vol.9908

- **An Infrared High Resolution Spectroscopic Abundance Study of the Metal-Poor Giant HD 122563**

SNEDEN C., AFŞAR M., JAFFE D. T. , MACE G., KİM H.

225th American Astronomical Society Meeting, Seattle, United States Of America, 04 Ocak 2015

- **GALACTIC CHEMICAL EVOLUTION: INSIGHTS FROM FIELD HORIZONTAL BRANCH STARS**

AFŞAR M., BOZKURT Z., BOCEK G., SEHITOĞLU G., Sneden C.

Physics of Evolved Stars: A Conference Dedicated to the Memory of Olivier Chesneau, Nice, France, 08 Haziran 2015, pp.345-346

- **HIGH-RESOLUTION NEAR INFRARED OBSERVATIONS OF RED HORIZONTAL BRANCH STARS IN THE GALACTIC FIELD**

AFŞAR M., BOZKURT Z., TOPCU G. B. , SEHITOĞLU G., Sneden C., JAFFE D., KİM H., MACE G.

Physics of Evolved Stars: A Conference Dedicated to the Memory of Olivier Chesneau, Nice, France, 08 Haziran 2015, pp.347-348

- **CHEMICAL ABUNDANCES OF RHBs IN THE THIN AND THICK DISK**

AFŞAR M., Sneden C., FOR B.

Dig Sites of Stellar Archeology: Giant Stars in the Milky Way, 4 - 06 Eylül 2013

- **CHEMICAL COMPOSITION OF OPEN CLUSTER NGC 2548**

BÖCEK TOPCU G., AFŞAR M., Sneden C.

Dig Sites of Stellar Archeology: Giant Stars in the Milky Way, 4 - 06 Eylül 2013

- **Red horizontal branch stars in the Galactic field: A chemical abundance survey**

AFŞAR M., Sneden C., Fo B. -.

40th Liege International Astrophysical Colloquium on Ageing Low Mass Stars - From Red Giants to White Dwarfs, Liege, Belgium, 9 - 13 Temmuz 2012, vol.43

- **Chemical Compositions of Field Red Horizontal Branch Stars**

AFŞAR M., Sneden C., FOR B.

217th American Astronomical Society (AAS) meeting, Seattle, WA, USA, 9 - 13 Ocak 2011

- **UU Sagitte ve V477 Lyr Örtlen Çift Yıldızlarının İki Renk Işıkkölçümü Büyük Yarıçaplı İkinci Bileşenler**

AFŞAR M., İBANOĞLU C.

XVI. Ulusal Astronomi Toplantısı, Turkey, 8 - 12 Eylül 2008

- **Algol türü örtlen çift yıldızların ışıkölçüm ve tayf gözlemleri**

İBANOĞLU C., EVREN M. S. , TAŞ G., ÇAKIRLI Ö., BOZKURT Z., AFŞAR M., SİPAHİ E., DAL H. A. , ÖZDARCAN O., ZENGİN ÇAMURDAN D., et al.

XVI. Ulusal Astronomi Kongresi, Çanakkale, Turkey, 08 Eylül 2008, pp.661

- **A Young Open Cluster Surrounding V838 Monocerotis**

BOND H. E. , AFŞAR M.

ASP Conf. Ser., The Nature of V838 Mon and its Light Echo, La Palma, Spai, 16 - 19 Mayıs 2006

- **The Distance to V838 Monocerotis**

BOND H. E. , SPARKS W. B. , CRACRAFT M., AFŞAR M., CORRADI R., CRAUSE L., DOPİTA M., HENDEN A., LEVAY Z., MUNARİ U., et al.

2007 AAS Meeting, 5 - 10 Ocak 2007

- **Radial Velocity Survey of Central Stars of Southern Planetary Nebulae**

AFŞAR M., BOND H. E.

Stellar End Products, Instituto de Astrofísica de Andalucía - CSIC, Granada, Spain, 13 - 15 Nisan 2005

- **Searching for Spectroscopic Binary Nuclei of Southern Planetary Nebulae**

BOND H. E. , AFŞAR M.

205th Meeting of the American Astronomical Society, San Diego, United States Of America, 09 Ocak 2005

- **Photometric Observations of the Binary Nuclei of Three Abell Planetary Nebulae**

AFŞAR M., İBANOĞLU C.

Asymmetrical Planetary Nebulae III: Winds, Structure and the Thunderbird, 28 Temmuz - 01 Ağustos 2003

- **CG Cygni nin Uzun Dönemli Parlaklık ve Dönem Değişimi**

AFŞAR M., İBANOĞLU C.

XIII. Ulusal Astronomi Toplantısı, Turkey, 2 - 06 Eylül 2002

- **Güneştacında Alfven Dalgaları**

PEKÜNLÜ E. R. , BOZKURT Z., AFŞAR M., SOYDUGAN E., SOYDUGAN F.

XIII. Ulusal Astronomi Toplantısı, Turkey, 2 - 06 Eylül 2002

- **CG Cygni Örtün Çift Yıldızında Dönem Değişimi**

AFŞAR M., İBANOĞLU C., DEĞİRMENCİ Ö. L. , ÇAKIRLI Ö.

Stellar Activity and Variability, Workshop, Turkey, 12 - 14 Ocak 2000

- **Gezenimsi Bulutsu Çekirdeğinde Bir Çift Yıldız IN Comae**

AFŞAR M., İBANOĞLU C.

XII. Ulusal Astronomi Toplantısı, Turkey, 4 - 08 Eylül 2000

## Supported Projects

Afşar M., Bozkurt Z., TÜBİTAK Project, Yıldız Sıcaklıklarının Kızılöte Tayf Çizgi Derinlik Oranlarından Belirlenmesi, 2019 - 2021

Bozkurt Z., Afşar M., Zengin Çamurdan D., TÜBİTAK Project, Kızılaşmış Trumpler 5 Açık Yıldız Kümesinden Seçilmiş Yıldızların Kızılöte Bölgede Kimyasal Bolluk Analizi, 2018 - 2019

AFŞAR M., TÜBİTAK Project, NGC 6940 Açık Yıldız Küme Üyesi Seçilmiş Kırmızı Devlerin Kızılöte Pencereden Kimyasal Bollukları, 2017 - 2018

AFŞAR M., BOZKURT Z., TÜBİTAK Project, Gökadamızın Yapısı ve Kimyasal Evriminin Kırmızı Yatay Kol Alan Yıldızları Aracılığı ile Araştırılması, 2013 - 2016

İbanoğlu C., Evren M. S. , Taş G., Çakırlı Ö., Bozkurt Z., Afşar M., Sipahi E., Dal H. A. , Zengin Çamurdan D., Özdarcan O., TÜBİTAK Project, Photometric and Spectroscopic Observations of Selected Algol type Binaries, 2005 - 2007

## Activities in Scientific Journals

Ege University, Journal of the Faculty of Science, Special Issue Editor, 2014 - 2014

## Memberships / Tasks in Scientific Organizations

IAU, Member, 2015 - Continues  
TAD, Member, 2014 - Continues

## **Invited Congress and Symposium Activities**

The 3rd International Turkish Congress on Molecular Spectroscopy, Attendee, --Seçiniz--, Turkey, 2017  
XX. Ulusal Astronomi Kongresi, Attendee, Turkey, 2016  
The Physics of Evolved Stars: A Conference Dedicated to the Memory of Olivier Chesneau, Attendee, France, 2015  
Dig Sites of Stellar Archeology: Giant Stars in the Milky Way, Attendee, Turkey, 2013  
40th Liege International Astrophysical Colloquium, "Ageing low mass stars: from red giants to white dwarfs", Attendee, France, 2012  
217th American Astronomical Society (AAS) meeting, Attendee, United States Of America, 2011  
XVI. Ulusal Astronomi Kongresi, Attendee, Turkey, 2008  
Stellar End Products, Attendee, Spain, 2005  
Asymmetrical Planetary Nebulae III: Winds, Structure and the Thunderbird, Attendee, United States Of America, 2003  
XIII. Ulusal Astronomi Kongresi, Attendee, Turkey, 2002  
New Directions for Close Binary Studies "The Royal Road to the Stars", Attendee, Turkey, 2002  
XII. Ulusal Astronomi Kongresi, Attendee, Turkey, 2000  
XI. Ulusal Astronomi Kongresi, Attendee, Turkey, 1999  
Variable Stars As Important Astrophysical Tools, NATO - ASI meeting, Attendee, Turkey, 1998  
Magnetic Activities in Cool Stars, Attendee, Turkey, 1998

## **Citations**

Total Citations (WOS):260  
h-index (WOS):10

## **Scholarships**

2219 YURT DIŐI DOKTORA SONRASI ARAŐTIRMA BURS PROGRAMI, University, 2010 - 2011  
Yurt İçi- Yurt DıŐı BütünleŐtirilmiŐ Doktora Programı, University, 2003 - 2004