

## Assoc. Prof. BORA KETENOĞLU

### Personal Information

Office Phone: [+90 312 203 3427](tel:+903122033427)

Fax Phone: [+90 312 212 7343](tel:+903122127343)

Email: [bketen@eng.ankara.edu.tr](mailto:bketen@eng.ankara.edu.tr)

Web: <https://pals.ankara.edu.tr>

Address: Ankara Üniversitesi Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 06100 Tandoğan, Ankara

### International Researcher IDs

ORCID: 0000-0003-0910-0473

Yoksis Researcher ID: 105281

### Education Information

Post Doctorate, European XFEL / Hamburg, Undulator Systems, Undulator Magnetic Measurements Lab, Germany 2013 - 2015

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Department of Engineering Physics, Turkey 2006 - 2011

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Department of Engineering Physics, Turkey 2002 - 2005

Undergraduate, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1998 - 2002

### Foreign Languages

English, C2 Mastery

### Dissertations

Doctorate, GeV enerjili elektron-pozitron çarpıştırıcıları ve SASE serbest elektron lazerleri için doğrusal elektron hızlandırıcılarının optimizasyonu, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), 2011

Postgraduate, Silisyumdan yapılmış metal/yarıiletken/metal sandeviç yapılarda uzay-yüküyle-sınırlı-akım (SCLC), Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (YI) (Tezli), 2005

### Research Areas

Physics, High Energy Physics, Interdisciplinary Physics and Related Science and Technology Areas, General Physics, Basic Particles and Areas

### Academic Titles / Tasks

Associate Professor, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2021 - Continues

### Courses

Accelerator Based Light Sources, Undergraduate, 2023 - 2024  
Physics-II (Electrics and Magnetism), Undergraduate, 2023 - 2024  
Introduction to Laser Physics, Postgraduate, 2023 - 2024  
Physics-I (Mechanics), Undergraduate, 2023 - 2024  
Particle Accelerators, Undergraduate, 2022 - 2023  
Engineering Mechanics, Undergraduate, 2022 - 2023

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Optimization of synchrotron radiation parameters using swarm intelligence and evolutionary algorithms**  
Karaca A. S., BOSTANCI G. E., KETENOĞLU D., Harder M., CANBAY A. C., KETENOĞLU B., Eren E., AYDIN A., Yin Z., GÜZEL M. S., et al.  
Journal of Synchrotron Radiation, vol.31, no.Pt 2, pp.420-429, 2024 (SCI-Expanded)
- II. **Review of muon-proton and muon-nucleus collider proposals**  
KETENOĞLU B., Dagli B., Ozturk A., Sultansoy S.  
MODERN PHYSICS LETTERS A, vol.37, no.37-38, 2022 (SCI-Expanded)
- III. **Luminosity and physics considerations on HL-LHC- and HE-LHC-based  $\mu\mu$  colliders**  
Kaya Ü., KETENOĞLU B., Sultansoy S., Zimmermann F.  
EPL, vol.138, no.2, 2022 (SCI-Expanded)
- IV. **Optimization and Design of Cutting-Edge-Technology Tools for Natural Sciences Research in the Twenty-First Century: X-Ray Free Electron Lasers**  
KETENOĞLU B.  
BRAZILIAN JOURNAL OF PHYSICS, vol.51, no.4, pp.1007-1016, 2021 (SCI-Expanded)
- V. **Main parameters of SppC-based "linac-ring eA" and "ring-ring  $\mu$  A" colliders**  
KETENOĞLU B.  
CANADIAN JOURNAL OF PHYSICS, vol.99, no.4, pp.259-262, 2021 (SCI-Expanded)
- VI. **Utilization of RADFET sensors for x-ray undulators: experiential considerations on magnetic field profile before commissioning**  
Englisch U., KETENOĞLU B.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.31, no.11, 2020 (SCI-Expanded)
- VII. **Optimization of SASE operation for an X-ray free-electron laser Using multiple objective evolutionary algorithms**  
AYDIN A., KETENOĞLU B., Bostanci E.  
INDIAN JOURNAL OF PURE & APPLIED PHYSICS, vol.58, no.8, pp.635-641, 2020 (SCI-Expanded)
- VIII. **Design of an X-ray undulator: optimization considerations for SASE operation**  
KETENOĞLU B., AYDIN A., YAVAŞ Ö.  
CANADIAN JOURNAL OF PHYSICS, vol.97, no.11, pp.1177-1181, 2019 (SCI-Expanded)
- IX. **Current status of Turkish accelerator and radiation laboratory in Ankara: the TARLA facility**  
AKSOY A., Karsli O., AYDIN A., KAYA Ç., KETENOĞLU B., KETENOĞLU D., YAVAŞ Ö.  
CANADIAN JOURNAL OF PHYSICS, vol.96, no.7, pp.837-842, 2018 (SCI-Expanded)
- X. **SppC Based Energy Frontier Lepton-Proton Colliders: Luminosity and Physics**  
Canbay A. C., Kaya Ü., KETENOĞLU B., Oner B. B., Sultansoy S.  
ADVANCES IN HIGH ENERGY PHYSICS, vol.2017, 2017 (SCI-Expanded)
- XI. **Transfer of the magnetic axis of an undulator to mechanical fiducial marks of a laser tracker system**  
KETENOĞLU B., Englisch U., Li Y., Wolff-Fabris F., Benecke W., Noak M., Prenting J., Schloesser M., Pflueger J.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.808, pp.135-140, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Alternative scenarios for the LHC based electron-proton collider**  
AKAY A. N., DAĞLI B., KETENOĞLU B., ÖZTÜRK A., ÖZTÜRK A., SULTANSOY S., SULTANSOY S.  
Turkish Journal of Physics, vol.48, no.5, pp.142-152, 2024 (ESCI)
- II. **A hard X-ray self-amplified spontaneous emission free-electron laser optimization using evolutionary algorithms for dedicated user applications**  
KETENOĞLU D., BOSTANCI G. E., AYDIN A., KETENOĞLU B.  
TURKISH JOURNAL OF PHYSICS, vol.43, no.6, pp.551-555, 2019 (ESCI)

## Books & Book Chapters

- I. **International Hybrid Workshop on Start-to-End Beamline Optimization for Synchrotron Radiation and Free-Electron Laser Facilities through Artificial Intelligence Approaches**  
Ketenoglu B. (Editor), Bostanci G. E. (Editor), Martins M. (Editor), Ketenoglu D. (Editor), Meyer M. (Editor), Harder M. (Editor)  
T.C. Kültür ve Turizm Bakanlığı Kütüphaneler ve Yayımlar Genel Müdürlüğü, Ankara, 2022

## Refereed Congress / Symposium Publications in Proceedings

- I. **TARLA: THE FIRST FACILITY OF TURKISH ACCELERATOR CENTER (TAC)**  
AKSOY A., AYDIN A., KAYA Ç., YAVAŞ Ö., KETENOĞLU B.  
International Particle Accelerator Conference, IPAC2017, Copenhagen, Denmark, 14 - 19 May 2017, pp.2776-2778
- II. **Accelerator based light source projects of Turkey**  
AKSOY A., Karsli Ö., KAYA Ç., YAVAŞ Ö., KETENOĞLU B., Nergiz Z.  
7th International Particle Accelerator Conference, IPAC 2016, Busan, South Korea, 8 - 13 May 2016, pp.2936-2939
- III. **Technical design studies of TAC SASE FEL proposal**  
KETENOĞLU B., YAVAŞ Ö., Tural M., ÖZKORUCUKLU S., Tapan I., ŞAHİN O., ARIKAN P.  
31st International Free Electron Laser Conference, FEL 2009, Liverpool, United Kingdom, 23 - 28 August 2009, pp.325-328
- IV. **The TAC IR FEL oscillator facility project**  
KETENOĞLU B., AKSOY A., YAVAŞ Ö., Tural M., Karsli O., ÖZKORUCUKLU S., ARIKAN P., KASAP E., YILDIZ H., Bilen B., et al.  
31st International Free Electron Laser Conference, FEL 2009, Liverpool, United Kingdom, 23 - 28 August 2009, pp.580-582
- V. **The status of Turkish accelerator complex project**  
AKSOY A., Ciftci A., Karsli O., KETENOĞLU B., YAVAŞ Ö., Sultansoy S.  
11th European Particle Accelerator Conference, EPAC 2008, Genoa, Italy, 23 - 27 June 2008, pp.2788-2790
- VI. **The status of TAC Infrared Free Electron Laser (IR-FEL) facility**  
AKSOY A., Karsli O., KETENOĞLU B., YAVAŞ Ö., Çiftçi A., Nergiz Z., KASAP E.  
11th European Particle Accelerator Conference, EPAC 2008, Genoa, Italy, 23 - 27 June 2008, pp.61-63

## Supported Projects

Ketenoglu B., Bostanci G. E., Ketenoglu D., Güzel M. S., Aydın A., TÜBİTAK International Bilateral Joint Cooperation Program Project, Genetic Algorithms based Synchrotron radiation Optimization for an X-ray beamLINE (GASOLINE), 2022 - 2024

Ketenoglu B., Aksoy A., Yavas Ö., Ketenoglu D., Kaya Ç., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi,

Electron Accelerator and Radiation Facility (TARLA), 2016 - 2021

Ketenoglu B., Yavas O., Project Supported by Other Official Institutions, Beam Dynamics and Beam-Beam Interactions Studies within the scope of CERN CLIC Electron Positron Collider , 2013 - 2017

## Tasks In Event Organizations

Çakir O., Ketenoglu D., KETENOĞLU B., Türk Fizik Derneği 14. Ulusal Parçacık Hızlandırıcıları ve Dedektörleri Yaz Okulu (UPHDYO-XIV), Science / Art Camp or Summer School Organization, Turkey, Eylül 2022

Adıgüzel A., Süsoy Doğan G., Yılmaz Alan H., Aydoğu H. S., Aksu Canbay C., Çetinkaya H., Çilli A., Güdekli E., Gürakar S., Güzelçimen F., et al, Turkish Physical Society (TPS) 38th International Physics Congress, Scientific Congress, Muğla, Turkey, Eylül 2022

## Metrics

Publication: 20

Citation (WoS): 37

Citation (Scopus): 50

H-Index (WoS): 4

H-Index (Scopus): 5