



- 1. Adı Soyadı** : M. Fatih BAY  
**2. Doğum Tarihi** : 18.01.1979  
**3. Unvanı** : Doçent Doktor  
**4. Öğrenim Durumu** : Doktora  
**5. Çalıştığı Kurum** : Antalya Bilim Üniversitesi

#### Öğrenim Bilgisi

Derece	Üniversite	Alan	Yıl
Doçentlik	Üniversitelerarası Kurul Başkanlığı (ÜAK)	FİZİK (Deneysel Parçacık Fiziği)	2015
Doktora	University of Bern (İsviçre)	FİZİK	2012
Y. Lisans	Orta Doğu Teknik Üniversitesi	FİZİK	2008
Lisans	Kocaeli Üniversitesi	FİZİK	2004

**Doçentlik Tarihi:** 2015 Eylül

**Profesörlük Tarihi:**

#### **Yüksek Lisans Tez Başlığı ve Tez Danışmanı :**

STUDY OF ELECTRON IDENTIFICATION IN THE OPERA DETECTOR

Tez Yöneticisi: Prof. Dr. Ali Murat Güler - ORTA DOĞU TEKNİK ÜNİVERSİTESİ

#### **Doktora Tezi Danışmanı :**

EXPERIMENTAL STUDY OF THE LOW-ENERGY NEUTRINO BEAM FOR THE T2K EXPERIMENT

Tez Yöneticisi: Prof. Dr. Antonio Ereditato – UNIVERSITY OF BERN

#### **5 .İdari Görevler**

1. Bölüm Başkan V., Makine Mühendisliği Bölümü, Antalya Bilim Üniversitesi (2020 - Halen)
2. Bölüm Başkan Yardımcısı (idari), Makine Mühendisliği Bölümü, Antalya Bilim Üniversitesi (2020 - Halen)
3. Enstitü Kurul Üyesi (IB), DUNE Deneyi, Fermilab, ABD (2015 - 2019)
4. Bütçe Kurul Üyesi (CRB), DUNE Deneyi, Fermilab, ABD (2015 - 2019)
5. Enstitü Kurul Üyesi (IB), MicroBooNE Deneyi, Fermilab, ABD (2015 - 2019)

## 6. Akademik Unvanlar

Görev Unvanı	Görev Yeri	Yıl
Ders Asistanı	Orta Doğu Teknik Üniversitesi Kuzey Kıbrıs Kampüsü, Fizik Grubu, Kuzey Kıbrıs	2007 - 2008
Araştırma Görevlisi	the INFN Laboratori Nazionale del Gran Sasso (LNGS), İtalya	2007 - 2008
Araştırma Görevlisi, Doktora öğrencisi	University of Bern, Albert Einstein Center for Fundamental Physics, Laboratory for High Energy Physics, İsviçre	2008 - 2012
Post-doc	Swiss Federal Institute of Technology in Zurich (ETH Zurich), Particle Physics Institute, İsviçre	2013 - 2014
Post-doc (Asosiy Üye)	The European Organization for Nuclear Research (CERN), İsviçre	2013 - 2014
Ziyaretçi Araştırmacı	Orta Doğu Teknik Üniversitesi, Fizik Bölümü	2015 - 2016
Başuzman Araştırmacı	TÜBİTAK UZAY Teknolojileri Araştırma Enstitüsü	2015 - 2019
Yarı zamanlı Öğretim Üyesi (Doç. Dr.)	Orta Doğu Teknik Üniversitesi, Mühendislik Bilimleri Bölümü	2016 - 2017
Post-doc	University of Amsterdam ve National Institute for Subatomic Physics (Nikhef), Hollanda	2019 - 2020
Öğretim Üyesi (Doç. Dr.)	Antalya Bilim Üniversitesi, Makine Mühendisliği Bölümü	2020 - Halen

## 7. Yönetilen Yüksek Lisans ve Doktora Tezleri

### 7.1. Yüksek Lisans Tezleri

## 7.2. Doktora Tezleri

## 8. Yayınlar

### 8.1. Uluslararası hakemli dergilerde yayınlanan makaleler

\*Toplam Makale Sayısı: 63

Toplam Atıf sayısı: 7459

h-index: 37

\*Atıf bilgileri Deneysel Yüksek Enerji Fiziği ile ilgili bilimsel yayınların toplandığı inspire'dan alınmıştır. (<https://inspirehep.net/authors/1077395?ui-citation-summary=true>) (15.12.2020)

1. B. Abi *et al.* [DUNE Collaboration], "First results on ProtoDUNE-SP liquid argon time projection chamber performance from a beam test at the CERN neutrino platform"  
**JINST 15 (2020) P12004, (Atıf sayısı: 11)**
2. B. Abi *et al.* [DUNE Collaboration], "Neutrino interaction classification with a convolutional neural network in the DUNE far detector"  
**Phys.Rev.D 102 (2020) 9, 092003, (Atıf sayısı: 6)**
3. B. Abi *et al.* [DUNE Collaboration], "Long-baseline neutrino oscillation physics potential of the DUNE experiment"  
**Eur.Phys.J.C 80 (2020) 10, 978, (Atıf sayısı: 8)**
4. Babak Abi *et al.* [DUNE Collaboration], "Volume I. Introduction to DUNE"  
**JINST 15 (2020) 08, T08008, (Atıf sayısı: 53)**
5. Babak Abi *et al.* [DUNE Collaboration], "Volume III. DUNE far detector technical coordination"  
**JINST 15 (2020) 08, T08009, (Atıf sayısı: 10)**
6. Babak Abi *et al.* [DUNE Collaboration], "Volume IV. The DUNE far detector single-phase technology"  
**JINST 15 (2020) 08, T08010 (Atıf sayısı: 24)**
7. C. Adams *et al.* [MicroBooNE Collaboration], "Reconstruction and Measurement of  $O(100)$  MeV Energy Electromagnetic Activity from  $\pi^0 \rightarrow \gamma\gamma$  Decays in the MicroBooNE LArTPC"  
**JINST 15 (2020) 02, P02007, (Atıf sayısı: 4)**
8. C. Adams *et al.* [MicroBooNE Collaboration], "A method to determine the electric field of liquid argon time projection chambers using a UV laser system and its application in MicroBooNE"  
**JINST 15 (2020) no.07, P07010, (Atıf sayısı: 12)**
9. C. Adams *et al.* [MicroBooNE Collaboration], "Calibration of the charge and energy loss per unit length of the MicroBooNE liquid argon time projection chamber using muons and protons"  
**JINST 15 (2020) no.03, P03022, (Atıf sayısı: 17)**
10. P. Abratenko *et al.* [MicroBooNE Collaboration], "First Measurement of Inclusive Muon Neutrino Charged Current Differential Cross Sections on Argon at  $E_\nu \sim 0.8$  GeV with the MicroBooNE Detector,"  
**Phys.Rev.Lett. 123 (2019) no.13, 131801, doi:110.1103/PhysRevLett.123.131801 (Atıf sayısı: 20)**
11. C.Adams *et al.* [MicroBooNE Collaboration], "Design and construction of the MicroBooNE Cosmic Ray Tagger system,"  
**JINST 14 (2019) no.04, P04004, doi:10.1088/1748-0221/14/04/P04004 (Atıf sayısı: 12)**
12. C.Adams *et al.* [MicroBooNE Collaboration], "Rejecting cosmic background for exclusive charged current quasi elastic neutrino interaction studies with Liquid Argon TPCs; a case study with the MicroBooNE detector,"  
**Eur.Phys.J. C79 (2019) no.8, 673, doi: 10.1140/epjc/s10052-019-7184-7 (Atıf sayısı: 6)**
13. C.Adams *et al.* [MicroBooNE Collaboration], "First measurement of  $\nu\mu$  charged-current  $\pi^0$  production on argon with the MicroBooNE detector,"  
**Phys.Rev. D99 (2019) no.9, 091102, doi: 10.1103/PhysRevD.99.091102 (Atıf sayısı: 11)**

14. C.Adams *et al.* [MicroBooNE Collaboration], “*Deep neural network for pixel-level electromagnetic particle identification in the MicroBooNE liquid argon time projection chamber,*” **Phys.Rev. D99 (2019) no.9, 092001**,doi: 10.1103/PhysRevD.99.091102 (**Atif sayısı: 18**)
15. C.Adams *et al.* [MicroBooNE Collaboration], “*Comparison of  $\nu\mu$ -Ar multiplicity distributions observed by MicroBooNE to GENIE model predictions,*” **Eur.Phys.J. C79 (2019) no.3, 248**, doi:10.1140/epjc/s10052-019-6742-3 (**Atif sayısı: 8**)
16. C.Adams *et al.* [MicroBooNE Collaboration], “*Ionization electron signal processing in single phase LArTPCs. Part II. Data/simulation comparison and performance in MicroBooNE,*” **JINST 13 (2018) no.07, P07007**, doi:10.1088/1748-0221/13/07/P07007 (**Atif sayısı: 24**)
17. C.Adams *et al.* [MicroBooNE Collaboration], “*Ionization electron signal processing in single phase LArTPCs. Part I. Algorithm Description and quantitative evaluation with MicroBooNE simulation,*” **JINST 13 (2018) no.07, P07006**, doi:10.1088/1748-0221/13/07/P07006 (**Atif sayısı: 29**)
18. R. Acciarri *et al.* [MicroBooNE Collaboration], “*The Pandora multi-algorithm approach to automated pattern recognition of cosmic-ray muon and neutrino events in the MicroBooNE detector,*” **Eur.Phys.J. C78 (2018) no.1, 82**, doi:10.1140/epjc/s10052-017-5481-6 (**Atif sayısı: 39**)
19. R. Acciarri *et al.* [MicroBooNE Collaboration], “*Measurement of cosmic-ray reconstruction efficiencies in the MicroBooNE LArTPC using a small external cosmic-ray counter,*” **JINST 12 (2017) no.12, P12030**, doi:10.1088/1748-0221/12/12/P12030 (**Atif sayısı: 14**)
20. R. Acciarri *et al.* [MicroBooNE Collaboration], “*Noise Characterization and Filtering in the MicroBooNE Liquid Argon TPC,*” **JINST 12 (2017) no.08, P08003**, doi:10.1088/1748-0221/12/08/P08003 (**Atif sayısı: 46**)
21. R. Acciarri *et al.* [MicroBooNE Collaboration], “*Michel Electron Reconstruction Using Cosmic-Ray Data from the MicroBooNE LArTPC,*” **JINST 12 (2017) no.09, P09014**, doi:10.1088/1748-0221/12/09/P09014 (**Atif sayısı: 36**)
22. P. Abratenko *et al.* [MicroBooNE Collaboration], “*Determination of muon momentum in the MicroBooNE LArTPC using an improved model of multiple Coulomb scattering,*” **JINST 12 (2017) no.10, P10010**, doi:10.1088/1748-0221/12/10/P10010 (**Atif sayısı: 15**)
23. R. Acciarri *et al.* [MicroBooNE Collaboration], “*Design and Construction of the MicroBooNE Detector,*” **JINST 12 (2017) no.02, P02017**, doi:10.1088/1748-0221/12/02/P02017 (**Atif sayısı: 132**)
24. R. Acciarri *et al.* [MicroBooNE Collaboration], “*Convolutional Neural Networks Applied to Neutrino Events in a Liquid Argon Time Projection Chamber,*” **JINST 12 (2017) no.03, P03011**, doi:10.1088/1748-0221/12/03/P03011 (**Atif sayısı: 48**)
25. A.Aduszkiewicz *et al.* [NA61/SHINE Collaboration], “*Two-particle correlations in azimuthal angle and pseudorapidity in inelastic  $p + p$  interactions at the CERN Super Proton Synchrotron,*” **Eur.Phys.J. C77 (2017) no.2, 59**, doi:10.1140/epjc/s10052-017-4599-x (**Atif sayısı: 8**)
26. K.Abe *et al.* [T2K Collaboration], “*First measurement of the muon neutrino charged current single pion production cross section on water with the T2K near detector,*” **Phys.Rev. D95 (2017) no.1, 012010**, doi:10.1103/PhysRevD.95.012010 (**Atif sayısı: 34**)
27. K.Abe *et al.* [T2K Collaboration], “*Measurement of Coherent  $\pi(+)$  Production in Low Energy Neutrino-Carbon Scattering,*” **Phys. Rev. Lett. 117, no. 19, 192501 (2016)** doi:10.1103/PhysRevLett.117.192501 (**Atif sayısı: 20**)
28. N. Abgrall, *et al.* [NA61/SHINE Collaboration], “*Measurements of pion (+/-) differential yields from the surface of the T2K replica target for incoming 31 GeV/c protons with the NA61/SHINE spectrometer at the CERN SPS,*” **Eur. Phys. J. C76, no. 11, 617 (2016)** doi:10.1140/epjc/s10052-016-4440-y (**Atif sayısı: 25**)

29. K. Abe *et al.* [T2K Collaboration], “*Measurement of Muon Antineutrino Oscillations with an Accelerator-Produced Off-Axis Beam,*”  
**Phys.Rev.Lett.** **116** (2016) no.18, **181801** doi:10.1140/epjc/s10052-016-4440-y (Atif sayısı: 54)
30. A. Aduszkiewicz, *et al.* [NA61/SHINE Collaboration], “*Production of  $\Lambda$ -hyperons in inelastic  $p+p$  interactions at 158 GeV/c,*”  
**Eur. Phys. J. C76**, no. 4, **198** (2016), doi:10.1140/epjc/s10052-016-4003-2 (Atif sayısı: 14)
31. N. Abgrall, *et al.* [NA61/SHINE Collaboration], “*Measurements of  $\pi$  (+-),  $K$  (+-),  $K$  (+-),  $\Lambda$  and proton production in proton-carbon interactions at 31 GeV/c with the NA61/SHINE spectrometer at the CERN SPS,*”  
**Eur. Phys. J. C76**, no. 2, **84** (2016) doi:10.1140/epjc/s10052-016-3898-y (Atif sayısı: 75)
32. A. Aduszkiewicz *et al.* [NA61/SHINE Collaboration], “*Multiplicity and transverse momentum fluctuations in inelastic proton-proton interactions at the CERN Super Proton Synchrotron,*”  
**Eur. Phys. J. C76**, no. 11, **635** (2016) doi:10.1140/epjc/s10052-016-4450-9 (Atif sayısı: 49)
33. K. Abe *et al.* [T2K Collaboration], “*Measurement of the muon neutrino inclusive charged-current cross section in the energy range of 1–3 GeV with the T2K INGRID detector,*”  
**Phys. Rev. D93**, no. 7, **072002** (2016) doi:10.1103/PhysRevD.93.072002 (Atif sayısı: 20)
34. K. Abe *et al.* [T2K Collaboration], “*Measurement of the electron neutrino charged-current interaction rate on water with the T2K ND280  $\pi^0$  detector,*”  
**Phys. Rev. D91**, **112010** (2015) doi:10.1103/PhysRevD.91.112010 (Atif sayısı: 14)
35. K. Abe *et al.* [T2K Collaboration], “*Measurement of the  $\nu_\mu$  charged current quasielastic cross section on carbon with the T2K on-axis neutrino beam,*”  
**Phys. Rev. D91**, no. 11, **112002** (2015) doi:10.1103/PhysRevD.91.112002 (Atif sayısı: 46)
36. K. Abe *et al.* [T2K Collaboration], “*Upper bound on neutrino mass based on T2K neutrino timing measurements,*”  
**Phys. Rev. D93**, no. 1, **012006** (2016) doi:10.1103/PhysRevD.93.012006 (Atif sayısı: 6)
37. K. Abe *et al.* [Hyper-Kamiokande Proto- Collaboration], “*Physics potential of a long-baseline neutrino oscillation experiment using a J-PARC neutrino beam and Hyper-Kamiokande,*”  
**PTEP 2015**, **053C02** (2015) doi:10.1093/ptep/ptv061 (Atif sayısı: 240)
38. K. Abe *et al.* [T2K Collaboration], “*Measurements of neutrino oscillation in appearance and disappearance channels by the T2K experiment with  $6.6 \times 10^{20}$  protons on target,*”  
**Phys. Rev. D91**, no. 7, **072010** (2015) doi:10.1103/PhysRevD.91.072010 (Atif sayısı: 327)
39. K. Suzuki *et al.* [T2K Collaboration], “*Measurement of the muon beam direction and muon flux for the T2K neutrino experiment,*”  
**PTEP 2015**, no. 5, **053C01** (2015) doi:10.1093/ptep/ptv054 (Atif sayısı: 13)
40. K. Abe *et al.* [T2K Collaboration], “*Measurement of the  $\nu_\mu$  charged-current quasielastic cross section on carbon with the ND280 detector at T2K,*”  
**Phys. Rev. D92**, no. 11, **112003** (2015) doi:10.1103/PhysRevD.92.112003 (Atif sayısı: 43)
41. K. Abe *et al.* [T2K Collaboration], “*Search for short baseline  $\nu_e$  disappearance with the T2K near detector,*”  
**Phys. Rev. D91**, **051102** (2015) doi:10.1103/PhysRevD.91.051102 (Atif sayısı: 26)
42. K. Abe *et al.* [T2K Collaboration], “*Neutrino oscillation physics potential of the T2K experiment,*”  
**PTEP 2015**, no. 4, **043C01** (2015) doi:10.1093/ptep/ptv031 (Atif sayısı: 107)
43. K. Abe *et al.* [T2K Collaboration], “*Measurement of the Inclusive Electron Neutrino Charged Current Cross Section on Carbon with the T2K Near Detector,*”  
**Phys. Rev. Lett.** **113**, no. 24, **241803** (2014) doi:10.1103/PhysRevLett.113.241803 (Atif sayısı: 75)

44. K. Abe *et al.* [T2K Collaboration], “Measurement of the inclusive  $\nu_{\mu}$  charged current cross section on iron and hydrocarbon in the T2K on-axis neutrino beam,”  
**Phys. Rev. D****90**, no. 5, 052010 (2014) doi:10.1103/PhysRevD.90.052010 (Atif sayısı: 61)
45. K. Abe *et al.* [T2K Collaboration], “Measurement of the neutrino-oxygen neutral-current interaction cross section by observing nuclear deexcitation gamma rays,”  
**Phys. Rev. D****90**, no. 7, 072012 (2014) doi:10.1103/PhysRevD.90.072012 (Atif sayısı: 31)
46. K. Abe *et al.* [T2K Collaboration], “Measurement of the intrinsic electron neutrino component in the T2K neutrino beam with the ND280 detector,”  
**Phys. Rev. D****89**, 092003 (2014) [**Phys. Rev. D****89**, 099902 (2014)]  
doi:10.1103/PhysRevD.89.099902, 10.1103/PhysRevD.89.092003 (Atif sayısı: 41)
47. K. Abe *et al.* [T2K Collaboration], “Precise Measurement of the Neutrino Mixing Parameter  $\theta_{23}$  from Muon Neutrino Disappearance in an Off-Axis Beam,”  
**Phys. Rev. Lett.** **112**, no. 18, 181801 (2014) doi:10.1103/PhysRevLett.112.181801 (Atif sayısı: 280)
48. N. Abgrall *et al.* [NA61 Collaboration], “NA61/SHINE facility at the CERN SPS: beams and detector system,”  
**JINST** **9**, P06005 (2014) doi:10.1088/1748-0221/9/06/P06005 (Atif sayısı: 181)
49. S. K. Agarwalla *et al.* [LAGUNA-LBNO Collaboration], “The mass-hierarchy and CP-violation discovery reach of the LBNO long-baseline neutrino experiment,”  
**JHEP** **1405**, 094 (2014) doi:10.1007/JHEP05(2014)094 (Atif sayısı: 95)
50. K. Abe *et al.* [T2K Collaboration], “Observation of Electron Neutrino Appearance in a Muon Neutrino Beam,”  
**Phys. Rev. Lett.** **112**, 061802 (2014) doi:10.1103/PhysRevLett.112.061802 (Atif sayısı: 559)
51. N. Abgrall *et al.* [NA61/SHINE Collaboration], “Measurement of negatively charged pion spectra in inelastic  $p+p$  interactions at  $p_{\text{lab}} = 20, 31, 40, 80$  and  $158$  GeV/c,”  
**Eur. Phys. J. C****74**, no. 3, 2794 (2014) doi:10.1140/epjc/s10052-014-2794-6 (Atif sayısı: 82)
52. A. Badertscher *et al.*, “ArDM: first results from underground commissioning,”  
**JINST** **8**, C09005 (2013) doi:10.1088/1748-0221/8/09/C09005 (Atif sayısı: 31)
53. K. Abe *et al.* [T2K Collaboration], “Measurement of Neutrino Oscillation Parameters from Muon Neutrino Disappearance with an Off-axis Beam,”  
**Phys. Rev. Lett.** **111**, no. 21, 211803 (2013) doi:10.1103/PhysRevLett.111.211803 (Atif sayısı: 150)
54. K. Abe *et al.* [T2K Collaboration], “Evidence of Electron Neutrino Appearance in a Muon Neutrino Beam,”  
**Phys. Rev. D****88**, no. 3, 032002 (2013) doi:10.1103/PhysRevD.88.032002 (Atif sayısı: 220)
55. K. Abe *et al.* [T2K Collaboration], “Measurement of the inclusive  $\nu_{\mu}$  charged current cross section on carbon in the near detector of the T2K experiment,”  
**Phys. Rev. D****87**, no. 9, 092003 (2013) doi:10.1103/PhysRevD.87.092003 (Atif sayısı: 140)
56. K. Abe *et al.* [T2K Collaboration], “T2K neutrino flux prediction,”  
**Phys. Rev. D****87**, no. 1, 012001 (2013) Addendum: [**Phys. Rev. D****87**, no. 1, 019902 (2013)]  
doi:10.1103/PhysRevD.87.012001, 10.1103/PhysRevD.87.019902 (Atif sayısı: 241)
57. E. Frank *et al.*, “A dedicated device for measuring the magnetic field of the ND280 magnet in the T2K experiment,”  
**JINST** **7**, P01018 (2012) doi:10.1088/1748-0221/7/01/P01018 (Atif sayısı: 3)
58. K. Abe *et al.* [T2K Collaboration], “First Muon-Neutrino Disappearance Study with an Off-Axis Beam,”  
**Phys. Rev. D****85**, 031103 (2012) doi:10.1103/PhysRevD.85.031103 (Atif sayısı: 180)
59. K. Abe *et al.*, “Measurements of the T2K neutrino beam properties using the INGRID on-axis near detector,”  
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60. K. Abe *et al.* [T2K Collaboration], “*Indication of Electron Neutrino Appearance from an Accelerator-produced Off-axis Muon Neutrino Beam,*”  
**Phys. Rev. Lett.** **107**, 041801 (2011) doi:10.1103/PhysRevLett.107.041801 (Atif sayısı: 1522)
61. K. Abe *et al.* [T2K Collaboration], “*The T2K Experiment,*”  
**Nucl. Instrum. Meth.** **A659**, 106 (2011) doi:10.1016/j.nima.2011.06.067 (Atif sayısı: 689)
62. A. Anokhina *et al.* [OPERA Collaboration], “*Study of the effects induced by lead on the emulsion films of the OPERA experiment,*”  
**JINST** **3**, P07002 (2008) doi:10.1088/1748-0221/3/07/P07002 (Atif sayısı: 29)
63. A. Anokhina *et al.* [OPERA Collaboration], “*Emulsion sheet doublets as interface trackers for the OPERA experiment,*”  
**JINST** **3**, P07005 (2008) doi:10.1088/1748-0221/3/07/P07005 (Atif sayısı: 68)

## 8.2. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında (Proceeding) basılan bildiriler.

1. S. Tufanli, **F. Bay**, V. Cuha, M. Guler, U. Kose, “*OPERA Experiment and CS Facility*” TFD 24<sup>th</sup> International Physics Congresses, **p.611**, Malatya, Türkiye, Ağustos 2007
2. **F. Bay.**, A. Ereditato, M. Messina, I. Kreslo, M. Weber, V. Magalotti, A. Ariga, T. Ariga, E. Frank, B. Rossi, “*Low Energy Neutrino Monitor.*” Joint Annual Meeting of the Swiss Physical Society, ÖPG, SGAA and ÖGAA, **ID.347**, Lozan, İsviçre, Haziran 2011
3. K. Abe, N. Abgrall, H. Aihara, T. Akiri, C. Andreopoulos, S. Aoki, A. Ariga, S. Assylbekov, D. Autiero, M. Barbi, G. Barr, M. Bass, M. Batkiewicz, **F. Bay**, *et al.* [T2K Collaboration], “Recent Results from the T2K Experiment.”, Proceedings of the 9<sup>th</sup> International Symposium on Cosmology and Particle Astrophysics (CosPA 2012) NUCLEAR PHYSICS B – PROCEEDINGS SUPPLEMENTS (2014), Volumes 246-247, **Pages: 23-28**  
Taipei & Hsinchu, Tayvan, Kasım 2012
4. **F. Bay.**, C. Cantini, S. Murphy, F. Resnati, A. Rubbia, F. Sergiampietri, and S. Wu “*Evidence of electric breakdown induced by bubbles in liquid argon*”, High Voltage in Noble Liquids (HVNL13) Workshop, Fermi National Accelerator Laboratory (FNAL), Batavia, USA, Kasım 2013

## 8.3. Yazılan Uluslararası kitaplar veya kitaplarda bölümler.

## 8.4. Ulusal hakemli dergilerde yayınlanan makaleler

## 8.5. Ulusal bilimsel toplantılarda sunulan bildiri kitabında basılan bildiriler

## 8.6 Diğer Yayınlar Diğer Yayınlar (Popüler yayın, Niyet Mektubu, Dizayn Çalışması ve Deney Önerisi)

1. **F. Bay**, “Yeraltında Karanlık Madde Avı”, Bilim ve Teknik, TÜBİTAK, Ocak (2015)
2. M. Auger *et al.* [ArgonCube Collaboration], “ArgonCube: a Modular Approach for Liquid Argon TPC Neutrino Detectors for Near Detector Environments,” CERN-SPSC-2017-025/SPSC-I-246 (<https://cds.cern.ch/record/2268439?ln=en>)
3. B. Abi *et al.* [DUNE Collaboration], “The Single-Phase ProtoDUNE Technical Design Report,” arXiv:1706.07081 [physics.ins-det].
4. C. Amsler *et al.* [ArgonCube Collaboration], “ArgonCube: a novel, fully-modular approach for the realization of large-mass liquid argon TPC neutrino detectors,” CERN-SPSC-2015-009/SPSC-I-243 (<https://cds.cern.ch/record/1993255/files/SPSC-I-243.pdf>)
5. R. Acciarri *et al.* [DUNE Collaboration], “*Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE) Conceptual Design Report Volume 1: The LBNF and DUNE Projects,*”

6. R. Acciarri et al. [DUNE Collaboration], "Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE) Conceptual Design Report, Volume 4 The DUNE Detectors at LBNF,"
7. R. Acciarri et al. [DUNE Collaboration], "*Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE) Conceptual Design Report Volume 2: The Physics Program for DUNE at LBNF,*"
8. K. Abe et al. [Hyper-Kamiokande Working Group Collaboration], "*A Long Baseline Neutrino Oscillation Experiment Using J-PARC Neutrino Beam and Hyper-Kamiokande,*"
9. "*LBNO-DEMO: Large-scale neutrino detector demonstrators for phased performance assessment in view of a long-baseline oscillation experiment*", [LBNO-DEMO (CERN WA105) Collaboration], September (2014)
10. "*A detector to measure low energy muon-neutrino flux in the on-axis beam direction at the T2K 280m hall*", [The LEM Collaboration], December 10 (2010)
11. "A detector to monitor the neutrino beam asymmetry at the T2K 280m hall", [The Left-Right Monitor Collaboration], September 8 (2008)

## 9.Projeler

1. OPERA detektöründe elektron tanımlanması; The Oscillation Project with Emulsion-tRacking Apparatus (OPERA Deneyi); Orta Doğu Teknik Üniversitesi; Araştırmacı (2007-2008)
2. T2K deneyi için düşük enerjili nötrino demetinin deneysel çalışması; Low Energy neutrino Monitor (LEM); University of Bern; Doktora Öğrencisi (2008 - 2012)
3. T2K deneyinde müon nötrinolarının salınımlarının kaybolma tekniği ile analizi T2K deneyi; Swiss Federal Institute of Technology in Zurich (ETH Zurich); Dr.Araştırmacı (2012- 2014)
4. Argon Karanlık Madde deneyinde karanlık madde verisi analizi için yazılım geliştirme (ArDM deneyi); Swiss Federal Institute of Technology in Zurich (ETH Zurich); Dr.Araştırmacı (2013 - 2014 )
5. Uzun taban hatlı nötrino salınım deneylerinin Fizik hassaslık çalışmaları (LBNE, LBNO ve Hyper-K projeleri); Swiss Federal Institute of Technology in Zurich (ETH Zurich); Dr.Araştırmacı (2012 - 2014)
6. 2232 BİDEB Yurda Dönüş Bursu; Sıvı Argon Zaman İzdüşümü Odası Dedektör Teknolojisi içerisinde Pion-zero - Elektron Ayrımı - MicroBooNE Deneyi (ABD); TÜBİTAK UZAY, Başuzman Araştırmacı (2015 - 2017)

## 11.Bilimsel Kuruluşlara/Deneylere Üyelikleri

1. The European Organization for Nuclear Research (CERN), İsviçre (2007- Halen)
2. Laboratori Nazionali del Gran Sasso (LNGS), İtalya (2007-2008)
3. High Energy Accelerator Research Organization (KEK), Japonya (2008-2014)
4. Japan Proton Accelerator Research Complex (J-PARC), Japonya (2008-2014)
5. Laboratorio Subterráneo de Canfranc (LSC), İspanya (2012-2013)
6. Fermi Ulusal Laboratuvarı, Fermilab, ABD, (2015 - halen)
7. DUNE Deneyi, Fermilab, USA (2015-halen)
8. MicroBooNE Deneyi, Fermilab, USA (2015-2019)
9. ArgonCUBE Deneyi, CERN (2015-2019)
10. Argon Dark Matter (ArDM) Deneyi, Canfranc, Spain (2013-2014)
11. NA61 Deneyi, CERN, Switzerland (2013-2014)
12. The Long-Baseline Neutrino Oscillation (LAGUNA-LBNO) Deneyi, CERN, Switzerland (2013-2014)
13. The Hyper-Kamiokande Deneyi, J-PARC, Japan (2014)
14. The LEM (Low Energy neutrino Monitor Detector) Deneyi, J-PARC, Japan (2008-2012)
15. The T2K (Tokai-to-Kamioka) Deneyi, J-PARC, Japan (2008-2014)
16. The OPERA (Oscillation Project with Emulsion-tRacking Apparatus) Experiment in Gran Sasso, LNGS, Italy (2007-2008)



## 12.Ödüller

1. “*Breakthrough Prize in Fundamental Physics*” ödülü, (shared - Daya Bay, KamLAND, SNO, T2K, K2K and SuperK Collaborations), ABD, 2016
2. TÜBİTAK 2232 BİDEB Yurda Dönüş Bursu, 2015, Bütçe: 108.000 TL
3. “*Le Prix La Recherche*” ödülü (shared - T2K Collaboration), Fransa, 2011

## 13.Son iki yılda verdiği lisans ve lisansüstü düzeyindeki dersler

Akademik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Teorik	Uygulama	
2020-2021	Güz	PHYS 101 Physics I (Antalya Bilim Üniversitesi)	3		101
2020-2021	Güz	ME 201 Fundamentals of Electrical and Electronics Engineering (Antalya Bilim Üniversitesi)	3		10
2020-2021	Güz	FTR 107 Fizik 1 (Antalya Bilim Üniversitesi)	2		34
2016-2017	Güz	ES202 Mathematics for Engineers (ODTÜ Mühendislik Bilimleri)	3		58
2016-2017	Bahar	ES202 Mathematics for Engineers (ODTÜ Mühendislik Bilimleri)	3		64