

ALAETTIN SERHAN METE

PERSONAL DATA

PLACE AND DATE OF BIRTH: Ankara, Turkey | 30 April 1984
ADDRESS: 355, Rue Simone Veil, Saint-Genis-Pouilly, 01630, France
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RESEARCH INTERESTS

Exotic and SUSY searches for physics beyond the Standard Model with main focus on direct production of heavy gauge bosons, top squarks, charginos/neutralinos and sleptons. Currently working on the ATLAS experiment at the Large Hadron Collider and based at the European Organization for Nuclear Research, Geneva, Switzerland.

EDUCATION

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| 2006–2012 | Ph.D. in PHYSICS - Iowa State University , Ames, IA Adviser : Prof. James H. Cochran Thesis Title : “ <i>Search for a heavy charged gauge boson decaying to a muon and a neutrino in 1 fb^{-1} of proton-proton collisions at $\sqrt{s} = 7\text{ TeV}$ using the ATLAS Detector</i> ”, CERN-THESIS-2012-063 |
| 2002–2006 | B.Sc. in PHYSICS, Middle East Technical University , Ankara Graduation Project Supervisor : Prof. Namık Kemal PAK Graduation Project Title : “ <i>Time Dependent Wave Packet Collisions</i> ” HIGH HONOR STUDENT |

POSITIONS HELD

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| 2017– | Assistant Project Scientist, Department of Physics and Astronomy, University of California, Irvine , CA, USA |
| 2012–2017 | Post-Doctoral Research Scholar, Department of Physics and Astronomy, University of California, Irvine , CA, USA |
| 2008–2012 | Research Assistant, Department of Physics and Astronomy, Iowa State University , Ames, IA, USA and Brookhaven National Laboratory , Upton, NY, USA (since 2009) |
| 2006–2008 | Teaching Assistant, Department of Physics and Astronomy, Iowa State University , Ames, IA, USA |

TEACHING EXPERIENCE

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|--------------------|---|-----------------|
| Teaching Assistant | Phys. 111 - General Physics | (1 semester) |
| | Phys. 221 - Introduction to Classical Physics I | (2 semesters) |
| | Phys. 321 - Introduction to Modern Physics I | (1 semester) |
| | Phys. 564 - Advanced Classical Mechanics | (1 semester) |
| | Phys. 571 - Electricity and Magnetism I | (2 semesters) |

RESEARCH EXPERIENCE

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|--------------------------------|--|-------------|
| Editorial Board Member | ATLAS compressed SUSY EWK scenarios search | (2016–) |
| Analysis Contact | ATLAS Stop2L SUSY search (Moriond/LHCP 2017) | (2016–2017) |
| Editorial Board Member | ATLAS 2τ SUSY EWK search | (2016–2018) |
| Conference Note Editor | ATLAS Stop2L SUSY search (ICHEP 2016) | (2016) |
| Paper Editor | ATLAS legacy of Run-I SUSY EWK searches | (2015) |
| Subgroup Convener | ATLAS SUSY EWK searches | (2014–2015) |
| Analysis Contact/ Paper Editor | ATLAS 2L SUSY EWK search | (2013–2014) |
| Paper Editor | ATLAS $W' \rightarrow \ell\nu$ $\sqrt{s} = 8$ TeV search | (2014) |
| Analysis Contact/ Paper Editor | ATLAS $W' \rightarrow \ell\nu$ $\sqrt{s} = 7$ TeV search | (2011) |
| Software Developer | NSW sTGC trigger simulation | (2015–2017) |
| Software Developer | E_T^{miss} Run-II EDM and reconstruction | (2014–2017) |
| Trigger Monitoring Expert | Author of <i>OnlineRatesChecker</i> package | (2011–2012) |
| DAQ/HLT Shifter | Online DAQ/HLT shifts | (2010–2011) |

PUBLICATIONS

- ATLAS Collaboration, “Search for electroweak production of supersymmetric particles in final states with two or three leptons at $\sqrt{s} = 13$ TeV with the ATLAS detector”, *submitted to Eur. Phys. J. C* (2018), [arxiv:1803.02762 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for direct top squark pair production in final states with two leptons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector”, *Eur. Phys. J.* **C77** (2017) 898, [arxiv:1708.03247 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for supersymmetry in final states with two same-sign or three leptons and jets using 36 fb^{-1} of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector”, *J. High Energy Phys.* **09** (2017) 084, [arxiv:1706.03731 \[hep-ex\]](#)
- ATLAS Collaboration, “Dark matter interpretations of ATLAS searches for the electroweak production of supersymmetric particles in $\sqrt{s} = 8$ TeV proton-proton collisions”, *J. High Energy Phys.* **09** (2016) 175, [arxiv:1608.00872 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for the electroweak production of supersymmetric particles in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector”, *Phys. Rev.* **D93** (2016) 052002, [arxiv:1509.07152 \[hep-ex\]](#)
- J. Abdallah *et al.*, “Simplified Models for Dark Matter Searches at the LHC”, *Phys. Dark Univ.* **9-10** (2015) 8-23, [arxiv:1506.03116 \[hep-ph\]](#)
- ATLAS Collaboration, “Search for direct pair production of a chargino and a neutralino decaying to the 125 GeV Higgs boson in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector”, *Eur. Phys. J.* **C75** (2015) 208, [arxiv:1501.07110 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for new particles in events with one lepton and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector”, *J. High Energy Phys.* **09** (2014) 037, [arxiv:1407.7494 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for the direct production of charginos, neutralinos and staus in final states with at least two hadronically decaying taus and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector”, *J. High Energy Phys.* **10** (2014) 096, [arxiv:1407.0350 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for direct production of charginos, neutralinos and sleptons in final states with two leptons and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector”, *J. High Energy Phys.* **05** (2014) 071, [arxiv:1403.5294 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector”, *J. High Energy Phys.* **04** (2014) 169, [arxiv:1402.7029 \[hep-ex\]](#)
- ATLAS Collaboration, “ATLAS search for a heavy gauge boson decaying to a charged lepton and a neutrino in pp collisions at $\sqrt{s} = 7$ TeV”, *Eur. Phys. J.* **C72** (2012) 2241, [arxiv:1209.4446 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s} = 7$ TeV pp collisions with the ATLAS detector”, *Phys. Lett.* **B718** (2013) 841, [arxiv:1208.3144 \[hep-ex\]](#)

- ATLAS Collaboration, “Search for direct slepton and gaugino production in final states with two leptons and missing transverse momentum with the ATLAS detector in pp collisions at $\sqrt{s} = 7$ TeV”, Phys. Lett. **B718** (2013) 879, [arxiv:1208.2884 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for a heavy gauge boson decaying to a charged lepton and a neutrino in 1 fb^{-1} of pp collisions at $\sqrt{s} = 7$ TeV using the ATLAS detector”, Phys. Lett. **B705** (2011) 28, [arxiv:1108.1316 \[hep-ex\]](#)
- ATLAS Collaboration, “Search for high-mass states with lepton plus missing transverse momentum in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector”, Phys. Lett. **B701** (2011) 50, [arxiv:1103.1391 \[hep-ex\]](#)
- S.K. Gupta, A.S. Mete and G. Valencia, “CP violating anomalous top quark couplings at the LHC”, Phys. Rev. **D80** (2009) 034013, [arxiv:0905.1074 \[hep-ph\]](#)

CONFERENCE NOTES AND PROCEEDINGS

- ATLAS Collaboration, “Search for electroweak production of supersymmetric particles in the two and three lepton final state at $\sqrt{s} = 13$ TeV with the ATLAS detector”, [ATLAS-CONF-2017-039 \(2017\)](#)
- ATLAS Collaboration, “Search for electroweak production of charginos and neutralinos in multilepton final states at $\sqrt{s} = 13$ TeV with the ATLAS detector”, [ATLAS-CONF-2016-096 \(2016\)](#)
- ATLAS Collaboration, “Search for direct top squark pair production and Dark Matter production in final states with two leptons in $\sqrt{s} = 13$ TeV pp collisions using 13 fb^{-1} of ATLAS data”, [ATLAS-CONF-2016-076 \(2016\)](#)
- ATLAS Collaboration, “Search for supersymmetry with two same-sign leptons or three leptons using 13.2 fb^{-1} of $\sqrt{s} = 13$ TeV pp collision data collected by the ATLAS detector”, [ATLAS-CONF-2016-037 \(2016\)](#)
- ATLAS Collaboration, “Search for direct top squark pair production in final states with two leptons in $\sqrt{s} = 13$ TeV pp collisions using 3.2 fb^{-1} of ATLAS data”, [ATLAS-CONF-2016-009 \(2016\)](#)
- ATLAS Collaboration, “Search for high-mass states with one lepton plus missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector”, [ATLAS-CONF-2014-017 \(2014\)](#)
- ATLAS Collaboration, “Search for direct-slepton and direct-chargino production in final states with two opposite-sign leptons, missing transverse momentum and no jets in 20 fb^{-1} of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector”, [ATLAS-CONF-2013-049 \(2013\)](#)
- A. S. Mete, “New Physics searches with ATLAS”, EPJ Web Conf. **70** (2014) 00050, [ATL-PHYS-PROC-2012-201 \(2012\)](#)
- ATLAS Collaboration, “Search for high-mass states with one muon plus missing transverse momentum in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector”, [ATLAS-CONF-2011-082 \(2011\)](#)

TALKS

- “Higgsino searches and related challenges in ATLAS”, 53rd Rencontres de Moriond EW (3/2018), **(On behalf of the ATLAS Collaboration)**
- “Searches for supersymmetry with electroweak and third generation squark production at ATLAS”, CERN-LHC Seminar (5/2017), **(On behalf of the ATLAS Collaboration)**
- “SUSY at ATLAS”, (Re)interpreting the results of new physics searches at the LHC (12/2016), **(On behalf of the ATLAS Collaboration)**
- “SUSY 3rd Generation Review”, ATLAS SUSY Workshop at Sussex (4/2016)
- “EWK SUSY Searches”, ATLAS Physics Workshop - Ready for Run-2 (11/2014)
- “Searches for electroweakinos with Higgs in the final state”, ATLAS BSM Higgs Workshop (10/2014)
- “Search for dark matter in the mono-lepton channel at the LHC”, Dark Matter @ LHC (9/2014), **(On behalf of the ATLAS and CMS Collaborations)**
- “ATLAS Direct Electroweak SUSY Search in 2 OS Leptons + Missing Transverse Momentum Final State”, UC Irvine Particle Physics Seminar (3/2014)
- “ATLAS Direct Electroweak Searches”, Oregon Terascale Workshop (3/2014)

- “ATLAS Direct Electroweak Searches”, CERN Collider Cross Talk (8/2013)
- “2 Leptons ($e/\mu/\tau$) + MET”, ATLAS SUSY Workshop at Nikhef (4/2013)
- “New Physics searches with ATLAS”, International Conference on New Frontiers in Physics (6/2012),
(On behalf of the ATLAS Collaboration)
- “Background studies and spin correlation expectations in $t\bar{t}$ events in the e/μ decay channel at the LHC”,
American Physical Society April Meeting (5/2009), **(On behalf of the ATLAS Collaboration)**

PROGRAMMING

Operating Systems: Mac OS X - Linux SLC5/SLC6 - Windows XP/Vista/7/8/10
Languages: C, C++, Java, Python, Bash scripting, SQL, R, \LaTeX
Softwares: Pythia, MC@NLO, MadGraph, Jimmy, Herwig, Herwig++, ROOT,
Matlab, Mathematica, ATLAS Athena

LANGUAGES

TURKISH: Native
ENGLISH: Full Professional Proficiency
FRENCH: Elementary Proficiency