

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

2006–2012 | Ph.D. in PHYSICS - **Iowa State University**, Ames, IA
Adviser : Prof. James H. Cochran
Thesis Title : “*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*”, [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 : “*Time Dependent Wave Packet Collisions*”
HIGH HONOR STUDENT

POSITIONS HELD

2012– | 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

RESEARCH EXPERIENCE

Analysis Contact	ATLAS Stop2L SUSY search (Moriond/LHCP 2017)	(2016–)
Editorial Board Member	ATLAS compressed SUSY EWK scenarios search	(2016–)
Editorial Board Member	ATLAS 2τ SUSY EWK search	(2016–)
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 $W' \rightarrow \ell\nu$ $\sqrt{s} = 8\text{ TeV}$ search	(2014)
Analysis Contact/ Paper Editor	ATLAS $W' \rightarrow \ell\nu$ $\sqrt{s} = 7\text{ TeV}$ search	(2011)
Software Developer	NSW sTGC trigger simulation	(2015–)
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)

TEACHING EXPERIENCE

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)

PUBLICATIONS

- 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”, *submitted to Eur. Phys. J. C* (2017), [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”, *submitted to J. High Energy Phys.* (2017), [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

- “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