Adel Awad

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Education

1996 -2001	**Ph.D. Physics, University of Kentucky**, Kentucky, USA.
1993 -1994	**High Energy Physics Diploma, International Centre for Theoretical Physics**, Trieste, Italy.
1990 -1993	**M.S. Physics, Ain Shams University,** Cairo, Egypt.
1984 -1988	**B.S. Physics, Ain Shams University**, Cairo, Egypt.

Employment History

2020	**Professor**, **Department of Physics**, Faculty of Sciences, Ain Shams University, Cairo, Egypt.
2017- 2020	**Professor**, **Department of Physics**, School of Sciences and Engineering, American University in Cairo, Cairo, Egypt.
2016- 2017	**Deputy Director, Centre for Theoretical Physics**, British University in Egypt, Cairo, Egypt.
2016	**Professor (on leave),** Department of Physics, Faculty of Sciences, Ain Shams University, Cairo, Egypt.
2013- 2016	**Deputy Director, Centre for Theoretical Physics,** British University in Egypt, Cairo, Egypt.
2012-2013	**Deputy Director, Centre for Fundamental Physics,** Zewail City of Science and Technology, Giza, Egypt
2011-2012	**Associate professor,** Department of Physics, American University in Cairo, Cairo, Egypt
2010-2016	**Associate professor (on leave),** Department of Physics, Faculty of Sciences, Ain Shams University, Cairo, Egypt
2008-2010	**Assistant professor,** Department of Physics, Faculty of Sciences, Ain Shams University, Cairo, Egypt
2006-2008	**Visiting assistant professor,** Department of Physics and Astronomy, University of Kentucky, Kentucky, USA.
2003-2006	**Assistant professor,** Department of Physics, Faculty of Sciences, Ain Shams University, Cairo, Egypt.
2001-2003	**Postdoctoral research fellow,** Department of Physics, University of Cincinnati, Ohio, USA.

Awards and Distinctions

2024	**Top 2% most-cited scientists worldwide**, according to Stanford University- Elsevier list.
2020	**Top 2% most-cited scientists worldwide**, according to Stanford University- Elsevier list.
2020	**Medal of Sciences and Arts - first class**, Ministry of Higher Education and Scientific Research, Egypt.
2018	**State Award of Excellence in Basic Sciences, 2017**, Ministry of Higher Education and Scientific Research, Egypt.
2016	**High Impact Research Award**, Physics, the British University in Egypt, 2016.
2015	**Misr El-Khair Foundation's Award for "Best Publications in Physics 2015".**
2011	**State Incentive Award in Physics 2010**, Ministry of Higher Education and Scientific

Research, Egypt.

2010 **Misr El-Khair Foundation's Award for "Best Publications in Physics 2010"**

2008-2013 **Deputy Director and Theory Group Coordinator**, Egyptian Network for High Energy Physics, Academy of Scientific Research and Technology (the Egyptian team contributing to the Compact Muon Solenoid (CMS) experiment which is part of the Large Hardon Collider (LHC) activities at CERN)

2006 **Ain Shams University's Award** (Dr Hassan Abo-Laila Award) for the best single author publication in Physics.

2005-2011 **Associate Membership of International Center for Theoretical Physics**, Trieste, Italy.

2000-2001 **Best publication of a PhD candidate in science**, University of Kentucky, which supported my visit to MIT for a year.

Research Grants and Projects

- Project title "Dynamical Systems Approach to Cosmology" in 2018 and 2019, AUC Research Grant (PI), American University in Cairo.
- Project title "Concordance Cosmology: Consequence and Alternatives in Light of Current and Next Generation Data", STDF (Co-PI) in 2017.
- Project title "Search for Physics beyond the Standard Model" in 2009, STDF-NSF (Co-PI).
- Project title "Particle Physics Phenomenology in LHC Era" in 2008 (PI), Academy of Science Research and Technology, Egypt.

My Research in International Media

- Scientific American, Clara Moskowitz, In a "Rainbow" Universe Time May Have No Beginning, December 9, 2013.
- Nature *Middle East,* Zeeya Merali, Gravity rainbows point to ageless Universe, November 2013.
- Daily Mail, Ellie Zolfagharifard , Forget the Big Bang - 'Rainbow Gravity' theory suggests our universe has NO beginning and stretches out infinitely, December 11, 2013.
- Huffington Post, Science, 'Rainbow Gravity' Theory Says Our Universe Has No Beginning, December 11, 2013.

Services

Journal Reviewer

- Journals of Physical Review Letters, American Physical Society.
- Physical Review D; American Physical Society.
- Journal of Classical and Quantum Gravity; Institute of Physics Journal.
- Journal of High Energy Physics, Springer.
- Modern Physics Letters A, World Scientific.
- Letters in High Energy Physics, Andromeda Publishing Service.
- Trends in Theoretical Physics, Andromeda Publishing Service.

Funding Agency Reviewer

- Science and Technology Developing Funds (STDF).
- Misr Elkhair Funding Agency.

Science Outreach and Press

- **Invited public lecture** with Astronomy Club (AUC) "Interplay between Particle Physics and Cosmology" September 2019.
- **Invited public lecture** Mathematics Department, Cairo University in the Advanced Workshop for Undergraduate Students to give a talk on "Modern trend in Theoretical Physics Research" Dark Matter and Dark Energy" August 2019.
- I was invited to a radio show after receiving State Award of Excellence in Basic Science 2018.
- I was invited to a TV show after receiving State Award of Excellence in Basic Science 2018.
- **Invited public lecture** at Society of Physics Students (AUC) on "Dark Matter and Dark Energy" October 2017
- **Invited public lecture** at Society of Physics Students, American University in Cairo, November 2017.
- **Invited public lecture** at SCITA ASTROFAN Activity at Elzawia public library, October 2016.
- **Invited public lecture** at Zewail City of Science and Technology, "*Cosmic Acceleration and Dark Energy* ", September 2014.
- **Invited public lecture** at the Supreme Council of Culture, Cairo, "*Scientific Research and Economy*", June 2013.
- **Invited public lecture** at the American U. in Cairo, "*The Dark Side of Our Universe: Dark Matter and Dark Energy* ", October 2011.
- **Invited public lecture** at the Physics Department, Ain Shams U "*Why LHC Experiments at CERN*", October 2010.
- I was invited to a radio show after receiving the State Incentive Award in Physics 2010.
- I was invited to a TV show after receiving the State Incentive Award in Physics 2010.
- **Invited public lecture** on "*The Origin of Matter and the Big Bang Theory*" at Cairo Gallery, Ministry of Culture July 2009.
- **I gave a series of lectures** on Introduction to Quantum Field Theory at Cairo U, Ain Shams U and Helwan U aimed for B.S. students November and December 2009.
- **Invited public lectures** on "*Evolution of Scientific Thinking*" Centre for Social Studies, Giza, August 2005.
- **Invited public lecture** at Alexandria Library, in *Einstein* Symposium 2005, "*Black Holes and Information"*.

Professional Memberships

- American Physical Society.
- American Association of Physics Teachers.
- Associate Membership of International Center for Theoretical Physics, Trieste, Italy.

Conferences, Workshops, and Scientific Visits

June 1992	ICTP Summer School in High Energy Physics and Cosmology.
June 1994	ICTP Summer School in High Energy Physics and Cosmology.
June 1995	ICTP Summer School in High Energy Physics and Cosmology.
July 1999	TASI Summer School on Strings, Colorado, USA.
Oct. 1999	visiting graduate student at Princeton University and IAS for two months.
July 2000	Strings 2000, Michigan University, Ann Arbor, Michigan, USA.
Aug. 2000	American Physical Society Meeting, Division of Particles and Fields 2000, Columbus, Ohio, USA.
Sept. 2000	visiting researcher (for a year) at MIT, Boston, USA.
Jan. 2001	Cairo 1st International Conference on High Energy Physics, Cairo, Egypt.
May 2002	American Physical Society Meeting, Division of Particles and Fields, Williamsburg, Virginia, USA.
Sept. 2003	Quantum Theory and Symmetry '03, Cincinnati, USA.
Dec. 2003	Cairo 2nd Winter Workshop in High Energy Physics (co-organizer), Ain Shams U., Cairo, Egypt.
Dec. 2004	Cairo 3rd Winter Workshop in High Energy Physics (co-organizer), German U., Cairo, Egypt.
April 2005	International Conference of High Energy Physics and Mathematical Physics, Marrakech, Morocco.
July 2005	Visiting scientist for two months at the International Centre for Theoretical Physics, Trieste, Italy.
Sept. 2005	Einstein Symposium, at Alexandria Library, Alexandria, Egypt.
Jan. 2006	Cairo 2nd International Conference on High Energy Physics (co-organizer), GUC, Cairo, Egypt.
Mar. 2006	Great Lakes String Conference, Ann Arbor, Michigan, US.
April 2006	Visiting Researcher at the University of Kentucky for four months.
Sep. 2006	12th International Symposium on Particles, Strings and Cosmology, PASCOS-06, Columbus, Ohio, US.
Mar. 2007	Center for Theoretical Physics Symposium on Supersymmetry at LHC (co-organizer), British University in Egypt, Cairo, Egypt.
Dec. 2008	Attending Indian String Meeting, and visiting Chennai Mathematical Institute for a week, Chennai, India.
July 2009	Sixth International Symposium on “Quantum theory and Symmetry”, QS 2009, Lexington, Kentucky, US.
July 2009	Visiting University of Kentucky for two weeks to continue my collaboration with Sumit Das, Kentucky, US.
Aug 2009	Visiting ICTP for two months as an associate member, Trieste, Italy.
Nov. 2009	International Conference on Neutrino Physics in the LHC Era (member of the local organizing committee), Luxor, Egypt.
Nov. 2010	School on High Energy Physics (local organizer), Helwan University, Helwan, Egypt.
July 2012	Visiting University of Kentucky for one week, Kentucky, US.
Aug. 2012	Visiting University of Cincinnati for one week, Ohio, US.
Nov. 2014	Dark Side of the Universe, DSU 2014, Cape Town U., South Africa.
Dec 2015	Dark Matter in Cairo, Cairo, Egypt (an organizer)
July 2016	Visiting University of Kentucky and University of Cincinnati for 10 days, Kentucky and Ohio, US.

Dec. 2017	Beyond the Standard Model: From Theory to Experiment 2017, Hurgada, Egypt.
July 2018	Visiting University of Kentucky for 15 days, Kentucky, US.
March 2021	*Beyond Standard Model: From Theory to Experiment*, Gravity & Black Hole session co-chair, online conference.
July 2021	1st *CTP Internship & Workshop on Astrophysics, Gravity, and Cosmology*: Minicourses for undergraduate students on modern research in *Astrophysics,* Cosmology and Black Hole Physics (organizer).
Dec. 2021	CTP Workshop: Gravitating Frontiers, British university in Egypt (organizer).
July 2022	*2nd CTP Internship & Workshop on Astrophysics, Gravity, and Cosmology*: Minicourses for undergraduate students on modern research in *Astrophysics,* Cosmology and Black Hole Physics (organizer).
August 2023	*3rd CTP Internship & Workshop on Astrophysics, Gravity, and Cosmology*: Minicourses for undergraduate students on modern research in *Astrophysics,* Cosmology and Black Hole Physics (organizer).
July 2024	*4rd CTP Internship & Workshop on Astrophysics, Gravity, and Cosmology*: Minicourses for undergraduate students on modern research in *Astrophysics,* Cosmology and Black Hole Physics (organizer).

Talks (conferences, workshops, and visits)

Sept. 1993:	Ain Shams University, "*On the Equivalence between the Chiral Schwinger Model and the Model with a Wess-Zumino Term".*
Oct. 1998	University of Kentucky, "*Solitons, Monopoles and Strong-Weak coupling dualities".*
Oct. 1999	University of Kentucky, "*Holographic Stress Tensors for Rotating Black Holes*".
Aug. 2000	DPF 2000 Conference, "*Scale Invariance and the AdS/CFT correspondence".*
Mar. 2001	Massachusetts Institute of Technology, CTP, "*Rotating Black Holes and the AdS/CFT Correspondence*".
Oct. 2001	University of Cincinnati, "*Gauge/Gravity dualities*".
Mar. 2002	University of Cincinnati, *"Cosmic Acceleration"*.
Dec. 2003	Ain Shams University, "*AdS/CFT Duality*".
Dec. 2004	Cairo Workshop in HEP, German U. in Cairo, "*Introduction to Gauge/Gravity dualities*".
April 2005	The International Conference of High Energy Physics and Mathematical Physics, Marrakech, Morocco, "*Wess-Zumino term in N=2 Supersymmetric Theories*".
Sept. 2005	Invited talk at Einstein Symposium Part II, Alexandria Library, "*Black Hole Information Paradox and the AdS/CFT Correspondence*".
Sept. 2006	Invited talk at PASCOS 2006 Conference, Ohio State U., "*Kerr-AdS Black Holes and Counter-terms".*
Mar. 2007	Invited talk at CTP Symposium on Supersymmetry at LHC, British University in Egypt, Cairo,"*Kerr-AdS Black Holes, First Law and Counter-terms".*
May. 2008	Invited talk at University of Cincinnati, "*Gauge Theory Duals of Null and Space-like Cosmologies".*
Dec. 2008	Invited talk at Chennai Mathematical Institute, Chennai, India, "*Kerr-AdS solutions, counterterms and First Law".*
July 2009	Invited talk at The Sixth International Symposium on Quantum Theory and Symmetry, Kentucky U., Kentucky, US, "*Cosmological Singularities and time-dependent couplings".*
Nov. 2011	American University in Cairo, "*Dark energy and Dark matter: a unified view".*
July. 2012	Invited talk at University of Kentucky, "FLRW Cosmologies and Fixed Points".

Aug. 2012 Invited talk at University of Cincinnati, “Nonsingular Flat Cosmologies and Fixed Points”.

Nov. 2014 Dark Side of the Universe DSU 2014, Cape Town U., South Africa, “Weyl Anomaly and Cosmology”.

Sept.2015 Invited talk at Centre of Fundamental Physics, Zewail City of Science and Technology, "*Black Hole Information Paradox and Firewall proposal*".

July 2016 Invited talk at University of Kentucky, Physics and Astronomy Department “Weyl Anomaly and Initial Singularity Crossing”.

April 2017 Invited talk at Centre of Fundamental Physics, Zewail City of Science and Technology, “Higher-Curvature/Torsion Gravity Theories and Cosmological Singularity Crossing”.

Dec 2017 Invited talk at Beyond the Standard Model: From Theory to Experiment 2017, “Quantum Corrections, Higher Curvature Terms and Singularity Crossing”.

July 2018 Invited talk at University of Kentucky, Physics and Astronomy Department, “Gauss-Bonnet Gravity and Initial Cosmological Singularity”.

July 2021 *CTP Internship & Workshop in Astrophysics, Gravity, and Cosmology*: Gave a series of Lectures on Black Hole Thermodynamics and Information Loss Paradox.

Dec. 2021 CTP Workshop: Gravitating Frontiers: Gave a talk on Higher Curvature/Torsion Terms and Initial Time Singularities.

July 2022 *CTP Internship & Workshop in Astrophysics, Gravity, and Cosmology*: Gave a series of Lectures on Quantum Field Theory as well as Black Hole Thermodynamics.

Aug. 2023 *CTP Internship & training courses on Theoretical Physics: A minicourse on General Relativity, Collapsing stars and Black Holes.*

July 2024 *CTP Internship & training courses on Theoretical Physics: A minicourse on General Relativity.*

Supervision and Mentoring

Graduate Students

2021-2023 Mohamed Tharwat, the American University in Cairo. (MS)

2020-2023 Merna Ibrahim, Ain Shams University. (MS)

2018-2020 Hassan Elsayed, the American University in Cairo. (MS)

2018-2020 Ahmed Hemdan, the American University in Cairo. (Project: Bouncing Cosmology in Modified Gravity)

2016-2020 Somaya Eissa, Cairo University (MS)

2015-2021 Asmaa Mahmoud Ain Shams University. (MS)

2011-2016 Ahmed Alsayed Morsy Ain Shams University. (PhD)

Undergraduate Students

2018-2019 Yumna Moussa, the American University in Cairo (Senior Thesis)

2018-2019 Mariam Shafik, the American University in Cairo (Senior Thesis)

2018-2019 Youssef Emad, the American University in Cairo (Senior Thesis)

2017-2018 Sahar Diaa El Din, the American University in Cairo (Senior Thesis)

Teaching Experience

Courses:

All courses listed here were taught in English.

Fall 2003: Electromagnetic Theory (undergraduate course) at University of Cincinnati (USA). I used David J. Griffiths' "Introduction to Electrodynamics", 3rd edition. In this course I taught mainly Magnetostatics, Maxwell's equations and electromagnetic waves.

Fall 2003: Nuclear and Particle Physics (graduate course) at Ain Shams University. I used Samuel Wong's" Introducing Nuclear Physics" and taught matter and interactions, symmetries and elementary particle properties, nuclear models, nuclear interactions, and some applications of Nuclear Physics in Cosmology.

Spring 2004 and 2016: Introduction to Quantum Field Theory (graduate course) at Ain Shams University & British University in Egypt. I used M. Peskin's" An Introduction to Quantum Field Theory" and taught relativistic quantum mechanics (Klein Gordon and Dirac equations), symmetries and classical fields, quantization of free fields (scalar fields and Dirac fields), perturbation theory, Feynman diagrams and calculating cross sections.

Fall 2004 and 2005: Mathematical Physics (undergraduate course) at Ain Shams University. I used G. Arfken's" Mathematical Methods for Physicists" and taught Vector and Analysis, special functions, gamma, beta functions, Fourier series and simple partial differential equations such as Laplace's and Heat equations in two dimensions.

Spring 2004, 2005 and 2009: Statistical Mechanics (undergraduate course) at Ain Shams University. I used W. Greiner's" Introduction to Thermodynamics and Statistical Mechanics" and taught the concepts of phase space, macrostates and microstates. Ensemble theory, microcanonical, canonical and grand canonical ensemble. Fermi-Dirac and Bose-Einstein statistics.

Fall 2004, 2005 and 2009: Electromagnetic Theory (undergraduate course) at Ain Shams University. I used David J. Griffiths' "Introduction to Electrodynamics (3rd edition) and taught mainly, electrostatics and special techniques in solving electrostatic problems, and electric field in matters (dielectrics and conductors).

Fall 2004, 2005 and 2009: Mathematical Physics (Undergraduate course) at Ain Shams University. I followed "Mathematical Methods for Physicists", 7th Edition, by G. Arfken, H. Weber, F. Harris.

Spring 2005: Quantum Mechanics (undergraduate course) at Ain Shams University. I used David J. Griffiths' "Introduction to Quantum Mechanics" I taught, wave function, time-independent Schrodinger equation, formal developments, QM in three dimensions, identical particles, and time-independent perturbation theory.

Spring 2007 and 2008: Conceptual Physics-II (undergraduate) at University of Kentucky (USA). This is an introductory Physics course for nonscience majors. Textbook: Physics Matters: An Introduction to Conceptual Physics, James Trefil, Robert M. Hazen. In this semester I taught electricity, magnetism, and some modern physics topics.

Spring 2007 and 2008: Conceptual Physics-I (undergraduate) at University of Kentucky (USA). This is an introductory Physics course for nonscience majors. Textbook: Physics Matters: An Introduction to Conceptual Physics, James Trefil, Robert M. Hazen. In this semester I taught Mechanics, thermodynamics, and sound waves.

Fall 2009, Fall 2010 and Spring 2021: Group Theory and its applications in Physics (graduate course) Ain Shams and Cairo University (2009). This is an introductory course on group theory and its application in classical, quantum physics. I used "Groups, Representations and Physics" by H. Jones as a text. Major

topics covered: general properties of groups and mapping, group representations applications in solid state physics and quantum mechanics.

Spring 2011: Electricity and Magnetism at American U. in Cairo. This is an introductory calculus-based physics course for science majors. I used Serway eighth edition.

Fall 2011: Classical Mechanics at American U. in Cairo. This is an advanced undergraduate course in Mechanics for Physics and Engineering students. I used Thornton and Marion Fifth edition.

Fall 2015, Fall 2016: Modern Physics at the British U. in Egypt. This is an introductory physics course for engineering students. I used Serway eighth edition.

Fall 2017, Fall 2019, Fall 2020 and Fall 2022: Particle Physics (American U. in Cairo & Ain Shams) This is an introductory course on particle physics. The textbook I used was Modern Particle Physics, by Mark Thomson.

Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2019 and Fall 2020: Electricity and Magnetism (American U. in Cairo). This is an introductory calculus-based physics course for science majors at American University in Cairo. I used Walker, Halliday, and Resnick Principle of Physics 10th edition.

Spring 2018, Spring 2019 and Fall 2019: Quantum Mechanics (American U. in Cairo). This is an introductory course. I used David McIntyre' "Quantum Mechanics" I taught, quantum states, measurements and time-independent Schrodinger equation, angular momentum, and Hydrogen atom.

Fall 2005, 2010, 2020: General Relativity and Cosmology (American U. in Cairo & Ain Shams U.). This course covers the elements of general theory of relativity, including tensor algebra, tensor calculus and some concepts of differential geometry as well as Schwarzschild solution and some experimental evidence of general relativity. We used as a textbook General Relativity by M. Hobson, et al. Cambridge U. Press.

Fall 2011, Fall 2021, Spring 2021 and Fall 2022 and Spring 2022: Mechanics at Ain Shams U and American university (2011). This is an introductory calculus-based physics course for physics majors I used Serway six edition.

Spring 2022: Advanced Quantum Mechanics (American University in Cairo). This is a graduate quantum mechanics course. The textbook used was Modern Quantum Mechanics by Sakurai.

Fall 2022: Advanced Thermodynamics and Statistical Mechanics (American University in Cairo). This is a graduate thermodynamics and statistical mechanics' course. I prepared my own lecture notes and homework problems.

Curricula Development:

I worked as an active member of the Physics Department committee that developed curricula and academic standards for Bachelor and master's Programs in Physics at American university in Cairo, Zewail City of Science and Technology and at Ain Shams University.

Online Teaching Tools:

I have experience using the following learning management system and online learning platforms

- WebAssign, for course material, assessment, and grading,

- WileyPlus, for course material, assessment, and grading,
- Blackboard for class announcements, posting my lectures, homework solutions and sample tests.

Publications

Journal Papers

1. Dyonic Taub-NUT-AdS Black Branes: Thermodynamics and Phase Diagrams, Amr AlBarqawy, Adel Awad, Esraa Elkhateeb, Mohamed Tharwat, accepted for publication in *European Physics Journal C (2025);* e-Print: 2502.19511 [gr-qc].
2. Dyonic Taub-NUT-AdS Spaces: Phase Structures of all Horizon Geometries, Mohamed Tharwat, Amr AlBarqawy, Adel Awad and Esraa Elkhateeb, Phys. Rev. D 109, 084026 (2024); e-Print: 2312.15811 [gr-qc].
3. *Implications of the Conformal Constraint on Sound Speed on the Radius of PSR J0952–0607 within Rastall Gravity,* Waleed El Hanafy and Adel Awad, Astrophys. J. 951 (2023) 2, 144.
4. *Dyonic Taub-NUT-AdS: Unconstrained thermodynamics and phase structure,* Adel Awad and Esraa Elkhateeb, Phys. Rev. D 108 (2023) 6, 064022.
5. *Modified hybrid inflation, reheating, and stabilization of the electroweak vacuum,* Merna Ibrahim, Mustafa Ashry, Esraa Elkhateeb, Adel M. Awad and Ahmad Moursy, Phys. Rev. D 107 (2023) 3, 035023.
6. *Thermodynamics of 5D charged rotating black holes: a counter-terms treatment,* Adel Awad and Hassan ElSayed, Eur. Phys. J. C 83 (2023) 3, 187.
7. Revisiting diagonal tetrads: New Black Hole solutions in f(T) gravity, Adel Awad, Alexey Golovnev, Marıa-Jos´e Guzman, and Waleed El-Hanafy, Eur. Phys. J. C 82 (2022) 10, 972.
8. Lorentzian Taub-NUT spacetimes: Misner string charges and the first law, Adel Awad and Somaya Eissa, Phys. Rev. D 105 (2022) 12, 124034.
9. Degenerate Bogdanov-Takens bifurcations in a bulk viscous cosmology, Asmaa Abdel Azim, Adel Awad, and E. I. Lashin, Eur. Phys. J. C 80, 868 (2020).
10. Topological dyonic Taub-Bolt/NUT-AdS: Thermodynamics and first law, Adel Awad and Somaya Eissa, Phys. Rev. D 101 (2020) 12, 124011.
11. Viability of Bouncing Cosmology in Energy-Momentum-Squared Gravity, Ahmed H. Barbar, Adel M. Awad, Mohammad T. AlFiky, Phys. Rev. D 101 (2020) 4, 044058.
12. Rotating charged AdS solutions in quadratic f(T) gravity, A.M. Awad, G.G.L. Nashed, W. El Hanafy, Eur. Phys. J. C79, 668 (2019).
13. Phase Portraits of General f(T) Cosmology, A. Awad, W. El Hanafy, G.G.L. Nashed, Emmanuel N. Saridakis, JCAP 1802 (2018) no.02, 052.
14. Constant-roll Inflation in $f(T)$ Teleparallel Gravity, A. Awad, W. El Hanafy, G.G.L. Nashed, S.D. Odintsov, V.K. Oikonomou, JCAP 1807 (2018) no.07, 026.
15. D-dimensional charged Anti-de-Sitter black holes in f(T) gravity By A.M. Awad, S. Capozziello, G.G.L. Nashed, JHEP 1707 (2017) 136.
16. Generalized teleparallel cosmology and initial singularity crossing, Adel Awad, Gamal Nashed, JCAP 1702 (2017) no.02, 046.
17. Weyl Anomaly and Initial Singularity Crossing, Adel Awad, Phys. Rev. D93 (2016) no.8, 084006.

18. Higher Derivative Terms in Three Dimensional Supersymmetric Theories, **Adel Awad**, Mir Faizal, JHEP 1510 (2015) 002.
19. Four Dimensional Supersymmetric Theories in Presence of a Boundary, Mir Faizal, **Adel Awad**, Phys. Lett. B748 (2015) 414-421.
20. Minimal Length, Friedmann Equations and Maximum Density, **Adel Awad**, Ahmed Farag Ali, JHEP 1406 (2014) 093.
21. Planck-Scale Corrections to Friedmann Equation, **Adel Awad**, Ahmed Farag Ali, Central Eur. J. Phys. 12 (2014) no.4, 245-255.
22. Nonsingular Rainbow Universes, **Adel Awad**, Ahmed Farag Ali, Barun Majumder, JCAP 1310 (2013) 052.
23. Fixed points and FLRW cosmologies: Flat case, **Adel Awad**, Phys.Rev. D87 (2013) no.10, 103001, Erratum: Phys.Rev. D87 (2013) no.10, 109902.
24. Muon Anomalous Magnetic Moment and mu -> e gamma in B-L Model with Inverse Seesaw, W. Abdallah, **A. Awad**, S. Khalil, H. Okada, Eur.Phys.J. C72 (2012) 2108.
25. Slowly Varying Dilaton Cosmologies and their Field Theory Duals, **Adel Awad**, Sumit R. Das, Archisman Ghosh, Jae-Hyuk Oh, Sandip P. Trivedi, Phys.Rev. D80 (2009) 126011.
26. Gauge Theories with Time Dependent Couplings and their Cosmological Duals, **Adel Awad**, Sumit R. Das, Suresh Nampuri, K. Narayan, Sandip P. Tr vedi, Phys.Rev. D79 (2009) 046004.
27. Gauge theory duals of cosmological backgrounds and their energy momentum tensors, **Adel Awad,** Sumit R. Das, K. Narayan, Sandip P. Trivedi, Phys.Rev. D77 (2008) 046008.
28. First law, counterterms and Kerr-AdS(5) black hole, **Adel M. Awad**, Int.J.Mod.Phys. D18 (2009) 405-418.
29. Five-dimensional Kerr-AdS black holes, first law and counterterms, **Adel Awad**, Int.J.Mod.Phys. A22 (2007) 5700-5708.
30. On flux compactification and moduli stabilization, **A. Awad**, N. Chamoun, S. Khalil, Phys.Lett. B635 (2006) 136-140.
31. Higher dimensional Taub-NUTS and Taub-Bolts in Einstein-Maxwell gravity, **Adel M. Awad**, Class.Quant.Grav. 23 (2006) 2849-2860.
32. On superspace Chern-Simons-like terms By Philip C. Argyres, **Adel M. Awad**, Gregory A. Braun, F.Paul Esposito, JHEP 0502 (2005) 006.
33. Higher derivative terms in N=2 supersymmetric effective actions, Philip C. Argyres, **Adel M. Awad**, Gregory A. Braun, F. Paul Esposito, JHEP 0307 (2003) 060.
34. Higher dimensional charged rotating solutions in (A)dS space-times, **Adel M. Awad**, Class.Quant.Grav. 20 (2003) 2827-2834.
35. A Bestiary of higher dimensional Taub - NUT AdS space-times, **Adel Awad**, Andrew Chamblin, Class.Quant.Grav. 19 (2002) 2051-2062.
36. Higher dimensional Kerr - AdS black holes and the AdS / CFT correspondence, **Adel M. Awad**, Clifford V. Johnson, Phys.Rev. D63 (2001) 124023.
37. Scale versus conformal invariance in the AdS / CFT correspondence, **Adel M. Awad**, Clifford V. Johnson, Phys.Rev. D62 (2000) 125010.
38. Holographic stress tensors for Kerr - AdS black holes, **Adel M. Awad**, Clifford V. Johnson, Phys.Rev. D61 (2000) 084025.
39. The Equivalence between the chiral Schwinger model and the model with a Wess-Zumino term, **A.M.M. Awad**, Mod.Phys.Lett. A11 (1996) 267-276.

Conference Papers

40. Holomorphic Higher-Derivative Terms in Supersymetric Effective Action, P. C. Argyres, **A. Awad**, P. Moomaw, and J. Wittig, Proceedings of 7th International Conference on Supersymmetries and Quantum Symmetries (SQS 07), Dubna, Russia.
41. On The Thermodynamics of Kerr-AdS Black Holes, **A. Awad**, PASCOS-06: 12-th International Symposium on Particles, Strings, and Cosmology, Ohio Center for Technology and Science, Columbus, Ohio, USA.
42. Higher-Derivative Terms in N=2 SUSY effective actions, P.C. Argyres, **A. Awad**, G. Braun, and F.P. Esposito; Proceedings of 3rd International Symposium on Quantum Theory and Symmetries, Univ. Cincinnati, Cincinnati, Ohio, USA; hep-th/0402203.
43. Scale Invariance and the AdS/CFT Correspondence, **A. Awad** and C. Johnson, American Physical Society, Division of Particles & Fields meeting 2000, Published in Int.J.Mod.Phys. A16S1C (2001) 1008.

Other Publications: I was the deputy director and the theory coordinator of the Network of High Energy Physics (at the Academy of Scientific Research and Technology) that collaborated with Large Hadron Collider – Compact Muon Solenoid Experiments (2009-2017):

44. Measurement of electroweak production of a W boson and two forward jets in proton-proton collisions at $ \sqrt{s}=8 $ TeV, By CMS Collaboration (Vardan Khachatryan et al.). arXiv:1607.06975 [hep-ex]. 10.1007/JHEP11(2016)147. JHEP 1611 (2016) 147.
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