

# List of Publications

Abdel Nasser Tawfik

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## Scientific Networks

Scopus:	36635081200,	<a href="https://www.researchgate.net/profile/Abdel-Nasser-Tawfik">https://www.researchgate.net/profile/Abdel-Nasser-Tawfik</a>
LinkedIn:	13658649,	<a href="https://www.linkedin.com/in/abdel-nasser-tawfik-13658649/">https://www.linkedin.com/in/abdel-nasser-tawfik-13658649/</a>
Google Scholar:		<a href="https://scholar.google.com/citations?user=1LTh1k8AAAAJ&amp;hl=de&amp;oi=ao">https://scholar.google.com/citations?user=1LTh1k8AAAAJ&amp;hl=de&amp;oi=ao</a>
ORCID:	000-0002-1679-0225,	<a href="https://orcid.org/0000-0002-1679-0225">https://orcid.org/0000-0002-1679-0225</a>
Web of Science	M-6220-2013,	<a href="https://www.webofscience.com/wos/author/record/M-6220-2013">https://www.webofscience.com/wos/author/record/M-6220-2013</a>

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## Summary of my Research Papers:

1. Quantum Gravity, General Relativity and Astrophysics	56
2. Applied Mathematics (High-Energy Physics)	163
3. Statistical Mechanics (Generic Nonextensive Statistics)	10
4. Computational Science (Algorithms and Hard/Software)	9

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# First: Quantum Gravity, General Relativity and Astronomy

NO.	Paper Title	Journal & Publication Date	Authors	Role of Authors	Impact Factor
56	Singularity attenuation with quantum-mechanically revisited metric tensor	Astronomical Notes (2024) ttps://doi.org/10.1002/asna.20240003	<a href="#">A. Tawfik</a> , T. F. Dabash, A.A.Alshhri	Theory, interpretation, and Script	<b>0.779</b>
55	Timelike geodesic congruence in the simplest solutions of general relativity with quantum-improved metric tensor	<i>Int.J.Mod.Phys.D</i> 32 (2023) 15, 2350097	<a href="#">A. Tawfik</a> , T. F. Dabash	Theory, interpretation, and Script	<b>2.2</b>
54	On Possible Minimal Length Deformation of Metric Tensor, Levi-Civita Connection, and the Riemann Curvature Tensor	<i>MDPI Physics</i> 5 (2023) 4, 983-1002	F. T. Farouk, <a href="#">A. Tawfik</a> , F. S. Tarabia, M. Maher	Theory, interpretation, and Script	<b>1.6</b>
53	Born reciprocity and discretized Finsler structure: An approach to quantize GR curvature tensors on three-sphere	<i>Int.J.Mod.Phys. D</i> 32 (2023) 10, 2350068	<a href="#">A. Tawfik</a> , T. F. Dabash	Theory, interpretation, and Script	<b>2.2</b>
52	Born reciprocity and relativistic generalized uncertainty principle in Finsler structure: Fundamental tensor in discretized curved spacetime	<i>Int.J.Mod.Phys.D</i> 32 (2023) 09, 2350060	<a href="#">A.Tawfik</a> , T. F. Dabash	Theory, interpretation, and Script	<b>2.2</b>
54	Horizons: Nuclear Astrophysics in the 2020s and Beyond	<i>J.Phys.G</i> 49 (2022) 11, 110502 2205.07996 [nucl-ex]	H. Schatz, A.D. Bercerril Reyes, A. Best, E.F. Brown, K. Chatziioannou et al.	Script	<b>3.29</b>
51	Reconstruction of scalar field models for the PLECHDE model with Ricci scalar cut-off	2305.15437 [gr-qc]	A. Pasqua, <a href="#">S. Chatopadhyay</a> , <a href="#">I. Radin-schi</a> , <a href="#">A. A. Alshehr</a> , <a href="#">A. Tawfik</a>	Script	
50	Equations-of-state deduced form different types of black holes	<i>Indian J.Phys.</i> 97 (2023) 10, 3127-3132	<a href="#">H. Yassin</a> , <a href="#">E. R.Abo Elyazeed</a> , <a href="#">A. Tawfik</a>	Theory, interpretation, and Script	<b>1.778</b>
49	Discretized Finsler Structure: An Approach to Quantizing the First Fundamental Form	<i>Phys. Sci. Forum</i> 2023, 7(1), 36	<a href="#">A. Tawfik</a>	Entire Script	<b>0.7</b>

48	On possible quantization of the fundamental tensor in the relativistic regime	Astronomical Notes, 344, e220072 (2023)	<b>A. Tawfik</b>	Entire Script	<b>0.676</b>
47	On quantum-induced revisiting Einstein tensor in the relativistic regime	Astronomical Notes, 344, e220071, (2023)	<b>A. Tawfik</b>	Entire Script	<b>0.676</b>
46	Impacts of viscous matter and radiation on the temporal evolution of the universe	Ukrainian J. Phys. Vol. 67, Pages 338, Year 2022	E.A. Hakk, A. Nada, <b>A.N. Tawfik</b> , H. Yassin	Theory, interpretation, and Script	<b>0.84</b>
45	Reliable Equations of State of Viscous Strong and Electroweak Matter	<b>MG16</b> and <a href="#">2111.09871</a> [hep-ph]	<b>A. Tawfik</b>	Entire Script	<b>0.69</b>
44	Minimal length discretization and properties of modified metric tensor and geodesics	<b>MG16</b> and <a href="#">2111.05105</a> [physics.gen-ph]	<b>A. Tawfik</b> , Fady T. Farouk, F. Salah Tarabia, Muhammad Maher	Theory, interpretation, and Script	<b>0.69</b>
43	Cosmic Evolution of Viscous QCD Epoch in Causal Eckart Frame	Universe, Vol. 7, No. 5, Page 112, Year 2021	Eman Abdel Hakk, <b>Abdel Nasser Tawfik</b> , Afaf Nada, Hayam Yassin	Theory, interpretation, and Script	<b>2.165</b>
42	Early Universe Thermodynamics and Evolution in Nonviscous and Viscous Strong and Electroweak epochs: Possible Analytical Solutions	Entropy, Vol. 23. No. 3, Page 295, Year 2021 <a href="#">2102.12477</a> [gr-qc]	<b>Abdel Nasser Tawfik</b> , Carsten Greiner	Theory, interpretation, and Script	<b>2.419</b>
41	A minimal Length Uncertainty Approach to Cosmological Constant Problem	Astron.Nachr., Vol. 342, No. 1-2, Pages 49-53, Year 2021 <a href="#">2011.06944</a> [gr-qc]	Abdel Magied Diab, <b>Abdel Nasser Tawfik</b>	Theory, interpretation, and Script	<b>1.064</b>
40	Consequences of Minimal Length Discretization on Line Element, Metric Tensor and Geodesic Equation	Astron.Nachr., Vol. 342, No. 1-2, Pages 54-57, Year 2021 <a href="#">2011.05328</a> [gr-qc]	<b>Abdel Nasser Tawfik</b> , AbdelMagied Diab, Sameh Shenawy, Eiman Abou El Dahab	Theory, interpretation, and Script	<b>1.064</b>
39	Cosmology of a generalized version of holographic dark energy and reconstruction of different scalar field models	<i>Phys.Scripta</i> Vol. 95, Page 085005, Year 2020	S. Chattopadhyay, A. Pasqua, <b>A. Tawfik</b> , Ra. Myrzakulov	Interpretation and Script	<b>2.151</b>

38	Hadronization correspondence of Hawking-Unruh radiation from rotating and electrically charged black holes	<i>Phys.Scripta</i> Vol. 95, No. 6, Year 2020 2002.04969 [hep-ph]	H. Yassin, E. R. Abo Elyazeed, R. E. Break, A. M. Megahed, <b>A. Tawfik</b>	Theory, interpretation, and Script	<b>2.151</b>
37	A Possible Solution of the Cosmological Constant Problem based on Minimal Length Uncertainty and GW170817 and PLANCK Observations	<i>Adv. Hight Energy Phys.</i> , Vol. 2022, Pages 9351511, Year 2022 2005.03999 [physics.gen-ph]	Abdel Magied Diab, <b>Abdel Nasser Tawfik</b>	Theory, interpretation, and Script	<b>1.777</b>
36	Review on Dark Energy Models	<i>Grav. Cosmol.</i> Vol. 25. Pages 103-115, Year 2019	<b>Abdel Nasser Tawfik</b> , Eiman Abou El Dahab	Theory, interpretation, and Script	<b>0.87</b>
35	Minimal-supersymmetric extended inflation field in Horava-Lifshitz gravity	<i>Int.J.Mod.Phys. D</i> , Vol. 26, Page 1750166, Year 2017	<b>A. Tawfik</b> , A. Diab, E. Abou El Dahab	Theory, interpretation, and Script	<b>2.476</b>
34	FLRW Cosmology with Horava-Lifshitz Gravity: Impacts of Equations of State	<i>Int.J.Theor.Phys.</i> , Vol. 56, Page 2122, Year 2017	<b>A. Tawfik</b> , E. Abou El Dahab	Theory, interpretation, and Script	<b>0.964</b>
33	Perturbative instability of cosmology from quantum potential	<i>Phys.Rev. D</i> , Vol. 93, Page 063526, Year 2016	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab, Eiman Abou El Dahab, Tiberiu Harko	Theory, interpretation, and Script	<b>4.643</b>
32	Perturbative instability of inflationary cosmology from quantum potentials	<i>Indian J. Phys.</i> , Vol. 91, Page 1135, Year 2017	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab, and Eiman Abou El Dahab	Theory, interpretation. and Script	<b>0.988</b>
31	Analogy of QCD hadronization and Hawking-Unruh radiation at NICA	<i>Eur.Phys.J. A</i> , Vol. 52, Page 254, Year 2016	<b>Abdel Nasser Tawfik</b>	Entire	<b>2.373</b>
30	Emergence of cosmic space and minimal length in quantum gravity: a large class of spacetimes, equations of state, and minimal length approaches	<i>Indian J. Phys.</i> , Vol. 90, Page 1095, Year 2016	<b>Abdel Tawfik</b> and Abdel Diab	Theory, interpretation. and Script	<b>1.166</b>
29	Friedmann inflation in Horava-Lifshitz gravity with a scalar field	<i>Int.J.Mod.Phys. A</i> , Vol. 31, Page 1650042, Year 2016	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab, and Eiman Abou El Dahab	Theory, interpretation. and Script	<b>1.699</b>

28	Lorentz Invariance Violation and Generalized Uncertainty Principle	Phys. Part. Nuclei Lett. Vol. 13, Page 59, Year 2016	A. Tawfik, H. Magdy, A.Farag Ali,	Theory, interpretation, and Script	<b>1.015</b>
27	Our Understanding on Landau-Raychaudhuri Cosmology	15th Int. Conf. on Strangeness in Quark Matter, 06-11 Jul 2015. Dubna, Russia J. Phys.: Conf. Series, Vol. 668, Page 012113, Year 2016	Abdel Magied Diab and Abdel Nasser Tawfik	Theory, interpretation, and Script	<b>1.01</b>
26	Chemical freeze-out in Hawking-Unruh radiation and quark-hadron transition	Phys.Rev.D, Vol. 92, Page 085002, Year 2015	Abdel Nasser Tawfik, Hayam Yassin, Eman R. Abo Elyazeed	Theory, interpretation, and Script	<b>4.643</b>
25	Review on Generalized Uncertainty Principle	Rept.Prog.Phys. Vol. 78, Page 126001, Year 2015	Abdel Nasser Tawfik, Abdel Magied Diab	Theory, interpretation, and Script	<b>17.062</b>
24	Black Hole Corrections due to Minimal Length and Modified Dispersion Relation	Int.J.Mod.Phys. A, Vol. 30, Page 1550059, Year 2015	Abdel Nasser Tawfik, Abdel Magied Diab	Theory, interpretation, and Script	<b>1.699</b>
23	Generalized Uncertainty Principle and Recent Cosmic Inflation Observations	Electron.J.Theor.Phys., Vol. 12, Page 9, Year 2015	Abdel Nasser Tawfik and Abdel Magied Diab	Theory, interpretation, and Script	<b>0.321</b>
22	Generalized Uncertainty Principle: Approaches and Applications	Int. J. Mod. Phys. D, Vol. 23, Page 1430025, Year 2014	Abdel Nasser Tawfik and Abdel Magied Diab	Theory, interpretation, and Script	<b>1.741</b>
21	Nuclear inputs of key iron isotopes for core-collapse modeling and simulation	Phys. Scripta, Vol. 89, Page 084005, Year 2014	Jameel-Un Nabi and Abdel Nasser Tawfik	Theory and calculations	<b>1.126</b>
20	Corrections to entropy and thermodynamics of charged black hole using generalized uncertainty principle	Int.J.Mod.Phys. A, Vol. 30, Page 1550030, Year 2015	Abdel Nasser Tawfik and Eiman Abou El Dahab	Theory, interpretation, and Script	<b>1.699</b>
19	Measurable Maximal Energy and Minimal Time Interval	Can. J. Phys., Vol. 92, Page 106, Year 2014	Eiman Abou El Dahab and Abdel Nasser Tawfik	Theory, interpretation, and Script	<b>0.96</b>
18	Quantum Gravity effect on the Quark-Gluon Plasma	SOP Transactions on Theoretical Physics, Vol. 1,	I. Elmashad, A.Farag Ali, L.I. Abou-Salem,	Theory, interpretation,	<b>0.322</b>

		Page 1, Year 2014	Jameel-Un Nabi and <b>A. Tawfik</b>	and Script	
17	Orders of Fermi- and Plasma-Accelerations of Cosmic Rays	Physics International, Vol. 1, Page 7, Year 2014	<b>A. Tawfik</b>	Entire	<b>0.322</b>
16	Acceleration and Particle Field Interactions of Cosmic Rays II: Calculations	Physics International, Vol. 4, Page 29, Year 2013	<b>A. Tawfik</b> and A. Saleh, M.T. Ghoneim and A.A. Hady	Theory, interpretation, and Script	<b>0.322</b>
15	Fine-Grid Calculations for Stellar Electron and Positron Capture Rates on Fe-Isotopes	Phys. Atom. Nuclei, Vol. 76, Page 294, Year 2013	Jameel-Un Nabi and <b>A. Tawfik</b>	Theory, interpretation, and Script	<b>0.411</b>
14	Impacts of Generalized Uncertainty Principle on Black Hole Thermodynamics and Salecker-Wigner Inequalities	JCAP, Vol. 07, Page 040, Year 2013	<b>A.Tawfik</b>	Entire	<b>5.810</b>
13	Effects of the Generalized Uncertainty Principle on Compact Stars	Int. J. Mod. Phys. D, Vol. 22, Page 1350020, Year 2013	Ahmed Farag Ali and <b>A. Tawfik</b>	Theory, and Script	<b>1.741</b>
12	Modified Newton's Law of Gravitation Due to Minimal Length in Quantum Gravity	Adv. High Energy Phys., Vol. 2013, Page 126528, Year 2013	Ahmed Farag Ali and <b>Abdel Nasser Tawfik</b>	Theory, interpretation, and Script	<b>2.203</b>
11	Effects of quantum gravity on the inflationary parameters and thermodynamics of the early universe	Gen. Rel. Grav. Vol. 45, Page 1227, Year 2013	<b>A. Tawfik</b> , H. Magdy and A.Farag Ali	Theory, interpretation, and Script	<b>1.771</b>
10	Quark-Hadron Phase Transitions in Viscous Early Universe	Phys. Rev. D, Vol. 85, Page 084032, Year 2012	<b>A. Tawfik</b> , and T. Harko	Theory, interpretation, and Script	<b>4.643</b>
9	Thermodynamics of viscous Matter and Radiation in Early Universe	Can. J. Phys., Vol. 90, Page 433, Year 2012	<b>A. Tawfik</b> , and H. Magdy	Theory, interpretation, and Script	<b>0.96</b>
8	Hubble Parameter in Bulk Viscous Cosmology	12th Marcel Grossmann Meeting on "General Relativity" 12-18 July. 2009 Paris-France, World Scientific, pages: 1385-1387	<b>A. Tawfik</b> , H. Mansour, and M. Wahba	Theory, interpretation, and Script	<b>1.01</b>
7	Acceleration and Particle Field Interactions of	Physics International, Vol. 3,	<b>A. Tawfik</b> , A. Saleh,	Theory,	<b>0.322</b>

	Cosmic Rays I: Formalism	Page 64, Year 2012	M.T. Ghoneim and A. A. Hady	interpretation, and Script	
6	The Hubble parameter in the early universe with viscous QCD matter and finite cosmological constant	Ann. Phys. (Berlin), Vol. 523, Page 423, Year 2011	<b>A. Tawfik</b>	Entire	<b>3.048</b>
5	Viscous Quark Gluon Plasma in the Early Universe	Ann. Phys. (Berlin), Vol. 523, Page 194, Year 2011	<b>A. Tawfik</b> , M. Wahba, H. Mansour and T. Harko	Theory, interpretation, and Script	<b>3.048</b>
4	Thermodynamics in the Viscous Early Universe	Can.J.Phys., Vol. 88, Page 825, Year 2010	<b>A. Tawfik</b>	Entire	<b>0.96</b>
3	Hubble Parameter in QCD Universe for finite Bulk Viscosity	Ann. Phys. (Berlin), Vol. 522, Page 912, Year 2010	<b>A. Tawfik</b> , M. Wahba, H. Mansour, T. Harko	Theory, interpretation, and Script	<b>3.048</b>
2	Dissipative Processes in the Early Universe: Bulk Viscosity	Uzbek J. Phys., Vol. 12, Page 316, Year 2010	<b>A. Tawfik</b> , T. Harko, H. Mansour and M. Wahba	Theory, interpretation, and Script	<b>0.59</b>
1	Cosmological Consequences of QCD Phase Transition(s) in Early Universe	AIP Conf. Proc., Vol. 1115, Page 239, Year 2009	<b>A. Tawfik</b>	Entire	<b>1.01</b>

## Second: Applied Mathematics (High-Energy Physics)

NO	Paper Title	Journal & Publication Date	Authors	Role of Authors	Impact Factor
163	Excitation function of thermal freeze-out parameters and their correlations from strange hadrons spectra in Au–Au collision at 54.4 GeV	<i>Chin.J.Phys.</i> 87 (2024) 256-267	M. Waqas, G.X. Peng, M. Ajaz, A. Haj Ismail, <b>A. Tawfik</b>	interpretation, and Script	5.17
162	Transverse momentum distributions of the identified particles in mini-bias non-single diffracted p+p collisions at 200 GeV	<i>Chin.J.Phys.</i> 87 (2024) 284-297	M. Waqas, H.I. Al-rebdi, M. Ajaz, F.H. Liu, G.X. Peng, <b>A. Tawfik</b>	interpretation, and Script	5.17
161	Mass Spectrum of Non-Charmed and Charmed Meson States in Extended Linear-Sigma Model	<a href="#">2310.09387</a> [hep-ph]	<b>Abdel Nasser Tawfik</b> , Azar I. Ahmadov	interpretation, and Script	
160	Self-affine pionization in p–p collisions at LHC energy	<i>Int.J.Mod.Phys.D</i> 32 (2023) 10, 2350068	Shreya Bhattacharjee, Subhadeep Paul, Azharuddin Ahmed, <b>Abdel Nasser Tawfik</b> , Prabir Kr. Haldar	interpretation, and Script	2.2
159	Statistical Thermodynamics within Hadron resonance gas (HRG) model including magnetic field at the CBM Experiment	<i>PoS FAIRness2022</i> (2023) 039	Mahmoud Hanafy Nasar, Salma Gamal, Hayam Abo swan, <b>Abdel Nasser Tawfik</b>	Theory, interpretation, and Script	
158	QCD Phase Structure and In-Medium Modifications of Meson Masses in Polyakov Linear-Sigma Model with Finite Isospin Asymmetry	<i>Universe</i> 9 (2023) 6, 276	<b>Abdel Nasser Tawfik</b>	Entire Script	2,813
157	The case for an EIC Theory Alliance: Theoretical Challenges of the EIC	<a href="#">2305.14572</a> [hep-ph]	Raktim Abir, Igor Akushevich, Tolga Altinoluk, Daniele Paolo Anderle, Fatma P. Aslan, et al	Script	
156	Multiplicity dependent chaotic pionisation in p-p collisions for anisotropic phase space at LHC energy	<i>DAE Symp.Nucl.Phys.</i> 66 (2023) 984-985	Shreya Bhattacharjee, Subhadeep Paul, <b>A.</b>	Script	



			N. Tawfik, Prabir Kr. Haldar		
155	Variation of elliptic flow with centrality using UrQMD model in Au+Au and Pb+Pb collision at 200 AGeV	<i>DAE Symp.Nucl.Phys.</i> 66 (2023) 1024-1025	N. Subba, M. Ghimiray, A.N. Tawfik, P.K Haldar	Script	
154	Study of ring--like and jet--like events in heavy--ion collisions using R/S analysis technique	<i>DAE Symp.Nucl.Phys.</i> 66 (2023) 982-983	A. Ahmed, N. Subba, T. Biswas, A.N. Tawfik, P. K. Haldar	Script	
153	The Present and Future of QCD	2303.02579 [hep-ph]	P. Achenbach, D. Adhikari, A. Afanasev, F. Afzal, et al.	Script	
152	Precision Studies of QCD in the Low Energy Domain of the EIC	2211.15746 [nucl-ex]	V.D. Burkert, L. Elouadrhiri, A. Afanasev, J. Arrington, M. Contalbrigo et al.	Script	
151	Isospin Symmetry Breaking in Non-Perturbative QCD	Phys. Sci. Forum 2023, 7(1), 22	Abdel Nasser Tawfik	Entire	<b>0.7</b>
150	An almost-entirely precise empirical estimation for various chemical potentials	<i>Results Phys.</i> Vol. 42, Pages xx, Year 2022	Hayam Yassin, Eman R. Abo Elyazeed, Abdel Nasser Tawfik	Theory, interpretation, and Script	<b>4.476</b>
149	Pseudorapidity dependence of the transverse momentum distribution of charged particles in pp collisions at 0.9, 2.36, and 7 TeV	<i>Results Phys.</i> Vol. 42, Pages 105989, Year 2022	M. Waqas, G.X. Peng, M. Ajaz, A.M. Khubrani, E.A. Dawi, M. Adil Khan, A. Tawfik	Script	<b>4.476</b>
148	Energy dependence of the freeze-out parameters extracted from Au + Au and Pb + Pb collisions using THERMUS	<i>Indian J. Phys.</i> 10.1007/s12648-022-02492-z	M. Ghimiray, N. Subba, A. Ahmed, A. N. Tawfik, and P. K. Haldar	Calculations and script	<b>1.947</b>
147	Search for fractality and phase transition in p-p collisions at LHC energy	<i>Int. J. Mod. Phys. E</i> Vol. 31, Pages	Shreya Bhattacharjee, SubhaDeep	Calculations and script	<b>1.174</b>

		2250079, Year 2022	Paul, Azharuddin Ahmed, Nirpat Subba, <a href="#">Abdel Nasser Tawfik</a>		
146	Particle species and energy dependencies of freeze-out parameters in high-energy proton–proton collisions	<i>Eur. Phys. J. Plus</i> Vol. 137, Pages 1041, Year 2022 2209.03030 [hep-ph]	Muhammad Waqas, Guang Xiong Peng, Fu-Hu Liu, Muhammad Ajaz, Abd Al Karim Haj Ismail, Khusniddin K. Olimov, <a href="#">Abdel Nasser Tawfik</a>	Calculations and Script	<b>3.911</b>
146 5	Finite-Size Effects Near QCD Critical Point: Quark Number Susceptibility	<i>Int.J.Theor.Phys.</i> Vol. 61, Pages 181, Year 2022	B. Moussaoui, A. Ait El Djoudi, <a href="#">A. Tawfik</a>	Calculations and Script	<b>1.708</b>
144	Pion multiplicity fluctuations in p-p collisions at $\sqrt{s_{nn}}=13$ TeV	<i>65th DAE BRNS Symposium on nuclear physics</i> , 728-729	<a href="#">S. Paul</a> , <a href="#">S. Bhattacharjee</a> , <a href="#">A.N. Tawfik</a> , <a href="#">P.K. Haldar</a>	Script	<b>0.78</b>
143	Study of hadron yields produced in Pb-Pb collision	<i>65th DAE BRNS Symposium on nuclear physics</i> , 620-621	<a href="#">M. Ghimiray</a> , <a href="#">N. Subba</a> , <a href="#">A. Ahmed</a> , <a href="#">A.N. Tawfik</a> , <a href="#">P.K. Haldar</a>	Script	<b>0.78</b>
142	Forward-backward multiplicity correlations in Pb-Pb collision at $\sqrt{s_{nn}}=2.76$ TeV	<i>65th DAE BRNS Symposium on nuclear physics</i> , 624-625	<a href="#">A. Ahmed</a> , <a href="#">N. Subba</a> , <a href="#">A.N. Tawfik</a> , <a href="#">P.K. Haldar</a>	Script	<b>0.78</b>
141	Evidence of forward–backward correlation of pions in ultra-relativistic ring- and jet-like events in $^{16}\text{O-Ag/Br}16\text{O-Ag/Br}$ interactions at $E_{\text{lab}}=60$ A GeV	<i>Eur.Phys.J.A</i> Vol. 57 No. 12, Page 322, Year 2021	<a href="#">Azharuddin Ahmed</a> , <a href="#">Nirpat Subba</a> , <a href="#">Shreya Bhattacharjee</a> , <a href="#">Abdel Nasser Tawfik</a> , <a href="#">Prabir Kr. Haldar</a>	interpretation and Script	<b>4.62</b>
140	Particle ratios within Hadron Resonance Gas (HRG) and Artificial Neural Network (ANN) models	2201.04444 [hep-ph]	<a href="#">R.M. Abdel Rahman</a> , <a href="#">Mahmoud Y. El-Bakry</a> , <a href="#">D.M.</a>	interpretation and Script	

			<a href="#">Habashy, Abdel Nasser Tawfik</a> , <a href="#">Mahmoud Hanafy</a>		
139	Particles Multiplicity Based on Rapidity in Landau and Artificial Neural Network (ANN) Models	<i>Int.J.Mod.Phys.A</i> Vol. 37, No. 02, Pages 2250002, Year 2022 2109.07191 [hep-ph]	D.M. Habashy, Mahmoud Y. El-Bakry, <a href="#">Abdel Nasser Tawfik</a> , R.M. Abdel Rahman, Mahmoud Hanafy	interpretation and Script	<b>1.381</b>
138	Rapidity Distribution within Landau hydrodynamical model and EPOS event-generator at RHIC Energies	<i>Phys.Scripta</i> Vol. 97, Pages 065305, Year (2022) 2109.07248 [hep-ph]	R.M. Abdel Rahman, <a href="#">Abdel Nasser Tawfik</a> , Mahmoud Y. El-Bakry, D.M. Habashy, Mahmoud Hanafy	interpretation and Script	<b>2.487</b>
137	Degree of multifractality and correlations in framework of multi-dimensional complex network analysis for 16O-Ag/Br interactions at 60 A GeV	<i>Eur. Phys. J. Plus</i> , Vol 136, Pages 813, Year 2021	Nirpat Subba, Azharuddin Ahmed, Shreya Bhattacharjee, Prabir Kr. Haldar, <a href="#">Abdel Nasser Tawfik</a>	interpretation and Script	<b>3.228</b>
136	Chiral magnetic properties of QCD phase-diagram	<i>Eur.Phys.J.A</i> , Vol. 57, Nr. 6, Pages 200, Year 2021 2106.04576 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , Abdel Magied Diab	interpretation and Script	<b>2.799</b>
135	An approach to explore exotic hadronic states in 24Mg-Ag/Br interactions at 4.5 A GeV/c in framework of complex network analysis	<i>Eur.Phys.J.Plus</i> , Vol. 136, Pages 100, Year 2021	Nirpat Subba, Azharuddin Ahmed, Prabir Kumar Haldar, <a href="#">Abdel Nasser Tawfik</a>	interpretation and Script	<b>1.42</b>
134	Pronounced fluctuations of pions in ring-like events in 16O-Ag/Br Interactions at 60 A GeV/c in the framework of Complex Network Analysis	<i>Int.J.Mod.Phys.E</i> , Vol. 30, No. 01, Pages 2150002, Year (2021)	<a href="#">Nirpat Subba</a> , <a href="#">Azharuddin Ahmed</a> , <a href="#">Prabir Kumar Haldar</a> , <a href="#">Abdel Nasser Tawfik</a>	interpretation and Script	<b>1.036</b>
133	Almost Entirely Empirical Estimation for Chemical	<i>J.Exp.Theor.Phys.</i> ,	Hayam Yassin,	Theory,	<b>0.931</b>

	Potential	Vol. 130, Pages 506-516, Year (2020)	Eman R. Abo Elyazeed, <a href="#">Abdel Nasser Tawfik</a>	interpretation, and Script	
132	Bulk viscosity at high temperatures and energy densities	<i>Int. J. Mod. Phys. E</i> , Vol. 30, Page 2150067, Year 2021 1911.02797 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , <a href="#">Carsten Greiner</a>	Theory, interpretation, and Script	<b>1.036</b>
131	Multiplicity per rapidity in Carruthers and hadron resonance gas approaches	<i>Indian J. Phys.</i> 1911.01675 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , <a href="#">Mahmoud Hanafy</a> , <a href="#">Werner Scheinast</a>	Theory, interpretation, and Script	<b>1.407</b>
130	Polyakov linear-sigma model in mean-field approximation and optimized perturbation theory	<i>Phys.Rev.C</i> , Vol. 101, No. 3, Page 035210, Year 2020 1908.05939 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , <a href="#">Carsten Greiner</a> , <a href="#">Abdel Magied Diab</a> , <a href="#">M.T. Ghoneim</a> , <a href="#">H. Anwer</a> .	Theory, interpretation, and Script	<b>3.123</b>
129	Deconfinement and freezeout boundaries in equilibrium thermal models	<i>Adv.High Energy Phys.</i> Vol 2020, Page 2453476, Year (2020) 1908.00426 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , Muhammad Maher, <a href="#">A.H. El-Kateb</a> , Sara Abdelaziz	Theory, interpretation, and Script	<b>1.740</b>
128	Particle Ratios within EPOS, UrQMD and Thermal Models at AGS, SPS and RHIC Energies	<i>Int. J. Mod. Phys. E</i> , Vol. 30, Nr. 8, Page 2150072, Year 2021 1907.05729 [hep-ph]	<a href="#">Mahmoud Hanafy</a> , <a href="#">Abdel Nasser Tawfik</a> , Muhammad Maher, <a href="#">Werner Scheinast</a>	Theory, interpretation, and Script	<b>1.174</b>
127	Measurement of away-side broadening with self-subtraction of flow in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV	<i>Chin.Phys.C</i> , Vol 44, Page 104001, Year (2020) 1906.09363 [nucl-ex]	STAR Collaboration (Jaroslav Adam <a href="#">et al.</a> )	Script	<b>5.861</b>
126	Almost-Entirely Empirical Estimation for Baryon Chemical Potential	<i>J.Exp.Theor.Phys.</i> Vol. 157, Page 604, Year (2020) 1905.12758 [hep-ph]	<a href="#">Abdel Nasser Tawfik</a> , Magda Abdel Wahab, <a href="#">Hayam Yassin</a> , Hadeer Nasr El Din	Theory, interpretation, and Script	<b>0.931</b>

125	SU(3) Polyakov Linear-Sigma Model With Finite Isospin Asymmetry: QCD Phase Diagram	Int.J.Mod.Phys. A, Vol. 34, Page 1950199, Year 2019 1904.09890 [hep-ph]	Abdel Nasser Tawfik, Abdel Magied Diab, M.T. Ghoneim, H. Anwer	Theory, interpretation, and Script	<b>1.153</b>
124	Out-Of-Equilibrium Transverse Momentum Spectra of Pions at LHC Energies	Adv.High Energy Phys. Vol. 2019, Page 4604608 Year 2019 1903.04172 [hep-ph]	Abdel Nasser Tawfik	Entire	<b>1.953</b>
123	Equation of State for Cosmological Matter at and beyond QCD and Electroweak Eras	J.Phys. G Vol. 46, Page 125201, Year 2019 1903.00063 [hep-ph]	Abdel Nasser Tawfik, Igor Mishustin.	Theory, interpretation, and Script	<b>3.534</b>
122	Chiral phase structure and sixteen meson states in SU(3) Polyakov linear-sigma model at finite temperature and chemical potential in strong magnetic field	Chin.Phys. C, Vol. 43, Page 034103, Year 2019 1901.03293 [hep-ph]	Abdel Nasser Tawfik, Abdel Magied Diab, T.M. Hussein	Theory, interpretation, and Script	<b>3.298</b>
121	Quark–hadron phase structure, thermodynamics, and magnetization of QCD matter	J. Phys. G, Vol. 45, Page 055008, Year 2018 1604.08174 [hep-lat]	Abdel Nasser Tawfik, Abdel Magied Diab, M.T. Hussein	Theory, interpretation, and Script	<b>3.456</b>
120	Beam Energy Dependence of Jet-Quenching Effects in Au+Au Collisions at $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, \text{ and } 62.4 \text{ GeV}$	Phys.Rev.Lett., Vol. 121, Page 03230, Year 2018	STAR Collaboration (Leszek Adamczyk et al.).	Script	<b>7.180</b>
119	Azimuthal transverse single-spin asymmetries of inclusive jets and charged pions within jets from polarized-proton collisions at $\sqrt{s_{NN}}=500 \text{ GeV}$	Phys.Rev. D, Vol. 97, Page 032004, Year 2018	STAR Collaboration (Leszek Adamczyk et al.).	Script	<b>4.506</b>
118	Beam-Energy Dependence of Directed Flow of $\Lambda, \Lambda^-, K^{\pm}, K^{\pm}, K_s^0$ and $\phi$ in Au+Au Collisions	Phys.Rev.Lett., Vol. 120, Page 06230, Year 2018	STAR Collaboration (Leszek Adamczyk et al.).	Script	<b>7.180</b>
117	Collision Energy Dependence of Moments of Net-Kaon Multiplicity Distributions at RHIC	Phys.Lett. B, Vol. 785 pages 551-560, Year 2018	STAR Collaboration (L. Adamczyk et al.).	Script	<b>4.787</b>

116	Measurement of the $3\Lambda H$ lifetime in Au+Au collisions at the BNL Relativistic Heavy Ion Collider	Phys.Rev. C, Vol. 97, Page 054909, Year 2018	STAR Collaboration (L. Adamczyk et al.).	Script	<b>3.820</b>
115	Transverse spin-dependent azimuthal correlations of charged pion pairs measured in $p+p$ collisions at $\sqrt{s_{NN}}=500$ GeV	Phys.Lett. B, Vol. 780, pages 332-339, Year 2018	STAR Collaboration (L. Adamczyk et al.)	Script	<b>4.787</b>
114	Azimuthal anisotropy in Cu+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys.Rev. C, Vol. 98, Page 014915, Year 2018	STAR Collaboration (Leszek Adamczyk et al.).	Script	<b>3.820</b>
113	Quark-hadron phase structure of QCD matter from SU(4) Polyakov linear sigma model	EPJ Web Conf. Vol. 177, Page 09005, Year 2018	Abdel Magied Abdel Aal Diab, <b>Abdel Nasser Tawfik</b>	Theory, interpretation, and Script	<b>0.99</b>
112	SU(3) Polyakov linear-sigma model: Magnetic properties of QCD matter in thermal and dense medium	J.Exp.Theor.Phys., Vol. 126, Pages 620-632, Year 2018	<b>Abdel Nasser Tawfik</b> , <a href="#">Abdel Magied Diab</a> , <a href="#">M.T. Hussein</a>	Theory, interpretation, and Script	<b>1.255</b>
111	Harmonic decomposition of three-particle azimuthal correlations at energies available at the BNL Relativistic Heavy Ion Collider	Phys.Rev. C, Vol. 98, Page 034918, Year 2018	STAR Collaboration (L. Adamczyk, et al.)	Script	<b>3.820</b>
110	Strangeness chemical potential from the baryons relative to the kaons particle ratios	Int.J.Mod.Phys. D, Vol. 26, Page 1750046, Year 2017	<b>Abdel Nasser Tawfik</b> , <a href="#">Magda Abdel Wahab</a> , <a href="#">Hayam Yassin</a> , <a href="#">Eman R. Abo Elyazeed</a> , <a href="#">Hadeer M. Nasr El Din</a>	Theory, interpretation, and Script	<b>1.198</b>
109	Phenomenology of light- and strange-quark simultaneous production at high energies	Phys.Part.Nucl.Let, Vol. 14, Page 843, Year 2017	<b>Abdel Nasser Tawfik</b> , <a href="#">Hayam Yassin</a> , <a href="#">Eman R. Abo Elyazeed</a>	Theory, interpretation, and Script	<b>0.681</b>
108	Coherent diffractive photoproduction of $\rho^0$ mesons on gold nuclei at the Relativistic Heavy Ion Collider	Phys. Rev. C, Vol. 96, Page 054904, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Script	<b>3.820</b>
107	Measurements of jet quenching with semi-inclusive hadron+jet distributions in Au+Au collisions at	Phys. Rev. C, Vol. 96, Page 024905, Year	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Script	<b>3.820</b>

	$\sqrt{s_{NN}}=200$ GeV	2017			
106	Bulk Properties of the Medium Produced in Relativistic Heavy-Ion Collisions from the Beam Energy Scan Program	Phys. Rev. C, Vol. 96, Page 044904, Year 2017	STAR Collaboration (L. Adamczyk et al.).	Script	<b>3.820</b>
105	Global $\Lambda$ hyperon polarization in nuclear collisions: evidence for the most vortical fluid	Nature, Vol. 548, Page 62, Year 2017	STAR Collaboration (L. Adamczyk et al.).	Script	<b>40.137</b>
104	Measurement of D0 azimuthal anisotropy at mid-rapidity in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys.Rev.Lett., Vol. 118, Page 212301, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk</a> et al.).	Script	<b>7.512</b>
103	Freezeout parameters and dynamical net-charge fluctuations at NICA energies	AYSS-2016 JINR, Dubna, Russia 14-18 March 2016	M. Hanafy, <a href="#">A.Tawfik</a> , L.I. Abou-Salem, A. G. Shalaby, A.-Sorin, O. Rogachevsky, W. Scheinast	Theory and Script	<b>xx</b>
102	Electromagnetic Effects on Strongly Interacting QCD-Matter	AYSS-2016 JINR, Dubna, Russia 14-18 March 2016 <a href="#">1611.06926</a> [hep-lat]	Abdel Magied Abdel Aal Diab, <a href="#">Abdel Nasser Tawfik</a> , M.T. Hussein	Theory and Script	<b>xx</b>
101	Near-side azimuthal and pseudorapidity correlations using neutral strange baryons and mesons in d+Au, Cu+Cu and Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys.Rev. C Vol. 94, Page 014910, Year 2016	STAR Collaboration (B. Abelev <a href="#">et al.</a> ),	Calculations	<b>2.925</b>
100	Phenomenology of strangeness production at high energies	Europhys. Lett., Vol. 116, Page 62001, Year 2016	<a href="#">Abdel Nasser Tawfik</a> , Hayam Yassin, Eman R. Abo Elyazeed, Muhammad Maher, Abdel Magied Diab, Magda Abdel Wahab, <a href="#">Eiman Abou El Dahab</a>	Theory, interpretation, and Script	<b>1.963</b>
99	Strangeness production in high-energy collisions and Hawking-Unruh radiation	Int. J. Mod. Phys. E, Vol. 26, Page	<a href="#">Abdel Nasser Tawfik</a> , Hayam Yassin, Eman	Theory, interpretation,	<b>1.229</b>

		1750001, Year 2017	R. Abo Elyazeed	and Script	
98	Charge-dependent directed flow in Cu+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Rev. Lett., Vol. 118, Page 012301, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Script and some calculations	<b>7.512</b>
97	SU(4) Polyakov linear-sigma model at finite temperature and density	38th Int. Conf. on High Energy Physics (ICHEP 2016), Chicago, IL, USA, 03-10 Aug 2016 PoS ICHEP2016 (2016) 634	Abdel Magied Diab, Azar I. Ahmadov, <b>Abdel Nasser Tawfik</b> , Eiman Abou El Dahab	Theory, interpretation, and Script	<b>1.01</b>
96	Electromagnetic and transport properties of QGP within PLSM approach	38th Int. Conf. on High Energy Phys. (ICHEP 2016), Chicago, IL, USA, 03-10 Aug 2016 PoS ICHEP2016 (2016) 1016	<b>Abdel Nasser Tawfik</b>	Entire	<b>1.01</b>
95	Measurement of the cross section and longitudinal double-spin asymmetry for di-jet production in polarized pp collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Rev. D, Vol. 95, Page 071103, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Script	<b>4.506</b>
94	SU(3) Polyakov linear-sigma model: Conductivity and viscous properties of QCD matter in thermal medium	Int.J.Mod.Phys. A, Vol. 31, Page 1650175, Year 2016	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab, M.T. Hussein	Theory, interpretation, and Script	<b>1.699</b>
93	Di-Jet Imbalance Measurements at $\sqrt{s_{NN}}=200$ GeV at STAR	Phys.Rev.Lett., Vol. 119, Page 062301, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Script	<b>7.512</b>
92	Particle production and chemical freezeout from the hybrid UrQMD approach at NICA energies	Eur. Phys. J. A, Vol. 52, Page 324, Year 2016	<b>Abdel Nasser Tawfik</b> , <a href="#">Loutfy I. Abou-Salem</a> , <a href="#">Asmaa G. Shalaby</a> , <a href="#">Mahmoud Hanafy</a> , <a href="#">Alexander Sorin</a> , <a href="#">Oleg</a>	Theory, interpretation, and Script	<b>3.733</b>



			<a href="#">Rogachevsky, Wern3er Scheinast</a>		
91	Upsilon production in U+U collisions at 193 GeV with the STAR experiment	Phys. Rev. C, Vol. 94, Page 064904, Year 2016	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Script	<b>3.733</b>
90	SU(3) Polyakov linear-sigma model: bulk and shear viscosity of QCD matter in finite magnetic field	Int.J.Adv.Res.Phys.Sci., Vol. 3, Page 4, Year 2016	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab, T.M. Hussein	Theory, interpretation, and Script	<b>0.671</b>
89	Energy dependence of J/ψ production in Au+Au collisions at $\sqrt{s_{NN}}=39, 62.4$ and 200 GeV	Phys.Lett. B, Vol. 771, Page 13, Year 2017	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>4.787</b>
88	Direct virtual photon production in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Lett. B, Vol. 770, Page 451, Year 2017	STAR Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>4.787</b>
87	QCD Phase-transition and chemical freezeout in nonzero magnetic field at NICA	Indian J. Phys., Vol. 91, Page 93, Year 2016	<b>Abdel Nasser Tawfik</b>	Entire	<b>1.166</b>
86	On dynamical net-charge fluctuations within a hadron resonance gas approach	Adv.High Energy Phys., Vol. 2016, Page 2475916, Year 2016	<b>Abdel Nasser Tawfik</b> , L.I. Abou-Salem, Asmaa G. Shalaby, and M. Hanafy	Theory, interpretation, and Script	<b>2.203</b>
85	Jet-like Correlations with Direct-Photon and Neutral-Pion Triggers at $\sqrt{s_{NN}}=200$ GeV	Phys. Lett. B, Vol. 760, Page 689, Year 2016	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Some calculations	<b>6.131</b>
84	Near-side azimuthal and pseudorapidity correlations using neutral strange baryons and mesons in d+Au, Cu+C and Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Rev. C, Vol. 94, Page 014910, Year 2016	<a href="#">STAR</a> Collaboration ( <a href="#">B. Abelev et al.</a> )	Some calculations	<b>3.733</b>
83	Possible interrelations among chemical freeze-out conditions	Int.J.Mod.Phys. E, Vol. 25, Page 1650018, Year 2016	<b>A. Tawfik</b> , M.Y. El-Bakry, D.M. Habashy, M.T. Mohamed, and E. Abbas	Theory, interpretation, and Script	<b>1.343</b>
82	J/ψ production at low transverse momentum in p+p and d+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Rev. C, Vol. 93, Page 064904, Year	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>3.733</b>

		2016			
81	Measurement of elliptic flow of light nuclei at $\sqrt{s_{NN}}=200, 62.4, 39, 27, 19.6, 11.5,$ and $7.7$ GeV at the BNL Relativistic Heavy Ion Collider	Phys. Rev. C, Vol. 94, Page 034908, Year 2016	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>3.733</b>
80	Beam Energy Dependence of the Third Harmonic of Azimuthal Correlations in Au+Au Collisions at RHIC	Phys. Rev. Lett., Vol. 116, Page 112302, Year 2016	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>7.512</b>
79	Centrality dependence of identified particle elliptic flow in relativistic heavy ion collisions at $\sqrt{s_{NN}}=7.7-62.4$ GeV	Phys. Rev. C, Vol. 93, Page 014907, Year 2016	STAR Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>3.733</b>
78	Measurement of the transverse single-spin asymmetry in $p+p \rightarrow W^{\pm}/Z^0$ at RHIC	Phys. Rev. Lett., Vol. 116, Page 132301, Year 2016	<a href="#">STA</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Some calculations	<b>7.512</b>
77	Transport coefficients and quark-hadron phase transition(s) from PLSM in vanishing and finite magnetic field	15th Int. Conf. on Strangeness in Quark Matter, 06-11 Jul 2015. Dubna, Russia J. Phys.: Conf. Series, Vol. 668, Page 012082, Year 2016	<a href="#">Abdel Nasser Tawfik</a>	Entire	<b>1.01</b>
76	Centrality and transverse momentum dependence of elliptic flow of multi-strange hadrons and $\phi$ meson in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys.Rev.Lett., Vol. 116, Page 062301, Year 2016	STAR Collaboration ( <a href="#">L. Adamczyk et al.</a> ).	Script and some calculations	<b>7.512</b>
75	Equation of State in Non-Zero Magnetic Field	15th Int. Conf. on Strangeness in Quark Matter, 06-11 Jul 2015. Dubna, Russia J. Phys.: Conf. Series, Vol. 668, Page 012102, Year 2016	Nada Ezzelarab, Abdel Magied Diab, <a href="#">Abdel Nasser Tawfik</a>	Theory, interpretation, and Script	<b>3.456</b>
74	The $\phi(1020) \rightarrow e^+e^-$ meson decay measured with the STAR experiment in Au+Au collisions at	1503.04217 [hep-ex]	STAR Collaboration ( <a href="#">L. Adamczyk (AGH-</a>	Calculations	

	$\sqrt{s_{NN}}=200\text{GeV}$		UST, Cracow) <a href="#">et al.</a> ).		
73	Degree of chemical nonequilibrium in central Au – Au collisions at RHIC energies	Int.J.Mod.Phys. E Vol. 24, Page 1550067, Year 2015	<b>Abdel Nasser Tawfik</b> , M.Y. El-Bakry, D.M. Habashy, M.T. Mohamed, Ehab Abbas	Theory, interpretation, and Script	<b>1.615</b>
72	On SU(3) effective models and chiral phase-transition	Adv. High Energy Phys., Vol. 2015, Page 563428, Year 2015	<b>Abdel Nasser Tawfik</b> , Niseem Magdy	Theory, interpretation, and Script	<b>2.203</b>
71	Measurement of interaction between antiprotons	Nature, Vol. 527, Page 345, Year 2015	STAR Collaboration (L. Adamczyk et al.).	Script and some calculations	<b>41.456</b>
70	Beam-Energy Dependence of Charge Balance Functions from Au+Au Collisions at the BNL Relativistic Heavy Ion Collider	Phys. Rev. C, Vol. 94, Page 024909, Year 2016	STAR Collaboration (L. Adamczyk et al.)	Script and some calculations	<b>3.733</b>
69	Probing Parton Dynamics of QCD Matter with Omega and phi Production	Phys. Rev. C, Vol. 93, Page 021903, Year 2016	STAR Collaboration (L. Adamczyk et al.).	Script and some calculations	<b>3.733</b>
68	Azimuthal anisotropy in U+U and Au+Au collisions at RHIC	Phys.Rev.Lett., Vol. 115, Page 222301, Year 2015	STAR Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Script and some calculations	<b>7.512</b>
67	Observation of charge asymmetry dependence of pion elliptic flow and the possible chiral magnetic wave in heavy-ion collisions	Phys. Rev. Lett., Vol. 114, Page 252302, Year 2015	L. Adamczyk, et al. [STAR Collaboration],	Script and some calculations	<b>7.512</b>
66	Measurements of Dielectron Production in Au+Au Collisions at $\sqrt{s_{NN}}=200$ GeV from the STAR Experiment	Phys. Rev. C, Vol. 92, Page 024912, Year 2015	L. Adamczyk, et al. [STAR Collaboration],	Script and some calculations	<b>3.733</b>
65	Balance Function in High-Energy Collisions	Adv. High Energy Phys., Vol. 2015, Page 186812, Year 2015	<b>A. Tawfik</b> , Asmaa G. Shalaby	Theory, interpretation, and Script	<b>2.203</b>
64	Observation of Transverse Spin-Dependent Azimuthal Correlations of Charged Pion Pairs in	Phys. Rev. Lett., Vol. 115, Page 242501,	L. Adamczyk, et al. (STAR	Script and some	<b>7.512</b>

	p↑+p at $\sqrt{s_{NN}}=200$ GeV	Year 2015	Collaboration)	calculations	
63	Long-range pseudorapidity dihadron correlations in d+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Lett. B, Vol. 747, Page 265, Year 2015	L.Adamczyk, <a href="#">et al.</a> (STAR Collaboration),	Script and some calculations	<b>6.131</b>
62	Energy dependence of acceptance-corrected dielectron excess mass spectrum at mid-rapidity in Au+Au collisions at $\sqrt{s}=19.6$ and 200 GeV	Phys. Lett. B, Vol. 750, Page 64, Year 2015	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Script and some calculations	<b>6.131</b>
61	SU(3) Polyakov Linear $\sigma$ -Model in Magnetic Field: Thermodynamics, Higher-Order Moments, Chiral Phase Structure and Meson Masses	Phys. Rev. C, Vol. 91, Page 015206, Year 2015	<b>Abdel Nasser Tawfik</b> , Niseem Magdy	Theory, Interpretation and Script	<b>3.733</b>
60	Effect of event selection on jetlike correlation measurement in d+Au collisions at $\sqrt{s_{NN}}=200$ GeV	Phys. Lett. B, Vol. 743, Page 333, Year 2015	<a href="#">STAR</a> Collaboration ( <a href="#">L. Adamczyk et al.</a> )	Script and some calculations	<b>6.131</b>
59	Polyakov SU(3) extended linear- $\sigma$ model: Sixteen mesonic states in chiral phase structure	Phys. Rev. C, Vol. 91, Page 015204, Year 2015	<b>Abdel Nasser Tawfik</b> , Abdel Magied Diab	Theory, interpretation, and Script	<b>3.733</b>
58	Thermodynamics and higher order moments in SU(3) linear $\sigma$ -model with gluonic quasi-particles	J. Phys. G, Vol. 42, Page 015004, Year 2015	<b>Abdel Nasser Tawfik</b> , Niseem Magdy	Theory, interpretation, and Script	<b>3.456</b>
57	An Estimate of the Thermodynamic Pressure in High-Energy Collisions	Int. J. Mod. Phys. A, Vol. 30, Page 1550027, Year 2015	<b>Abdel Nasser Tawfik</b>	Entire	<b>1.699</b>
56	Particle Production at RHIC and LHC Energies	Int.J.Mod.Phys. A, Vol. 30, Page 1550131, Year 2015	<b>A. Tawfik</b> , E. Gamal, A. G. Shalaby	Theory, interpretation, and Script	<b>1.699</b>
55	Equilibrium Statistical-Thermal Models in High-Energy Physics	Int. J. Mod. Phys A, Vol. 29, Page 1430021, Year 2014	<b>A. Tawfik</b>	Entire	<b>1.699</b>
54	SU(3) Polyakov Linear Sigma-Model in an External Magnetic Field	Phys. Rev. C, Vol. 90, Page 015204, Year 2014	<b>Abdel Nasser Tawfik</b> , Niseem Magdy	Theory, interpretation, and Script	<b>3.733</b>
53	Polyakov linear SU(3) sigma model: features of higher order moments in dense and thermal hadronic	Phys. Rev. C, Vol. 89, Page 055210, Year	<b>A. Tawfik</b> , N. Magdy, A. Diab	Theory, interpretation,	<b>3.733</b>

	medium	2014		and Script	
52	Koppe's Work of 1948: A fundamental for non-equilibrium rate of particle production	Z. Naturforsch. A, Vol. 69, Page 106, Year 2014	A. Tawfik	Entire	1.432
51	Degrees of Chemical Non-Equilibrium in Central Au-Au Collisions at RHIC Energies	Int. J. Mod. Phys. E, Vol. 24, Page 1550067, Year 2015	Abdel Nasser Tawfik, Ehab Abbas	Theory, interpretation, and Script	1.343
50	Some Intensive and Extensive Quantities in High-Energy Collisions	31st Max Born Symposium and HIC for FAIR Workshop: Three Days of critical behaviour in hot and dense QCD, 14-16 Jun 2013. Wrocław, Poland Acta Physica Polonica B Proceedings Supplement, Vol. 7, Page 17, Year 2014	A.Tawfik	Entire	0.85
49	Chemical Freeze-Out and Higher Order Multiplicity Moments	Nucl. Phys. A, Vol. 922, Page 225, Year 2014	A. Tawfik	Entire	2.202
48	Black Box QGP	SOP Transactions on Theoretical Physics, Vol. 1, Page 7, Year 2014	A.Tawfik	Entire	0.322
47	Hadronic Equation of State and Speed of Sound in Thermal and Dense Medium	Int. J. Mod. Phys. A, Vol. 29, Page 1450152, Year 2014	A. Tawfik, H. Magdy	Theory, interpretation, and Script	1.699
46	Thermal Description of Particle Production in Au-Au Collisions at STAR Energies	Phys. Part. Nucl. Lett., Vol. 12, Page 521, Year 2015	A. Tawfik, E. Abbas	Theory, interpretation, and Script	0.619
45	Constant-Trace Anomaly as a Universal Condition	Phys. Rev. C, Vol. 88,	A.Tawfik	Entire	3.733

	for the Chemical Freeze-Out	Page 035203, Year 2013			
44	On the Higher Moments of Particle Multiplicity, Chemical Freeze-Out and QCD Critical Endpoint	Adv. High Energy Phys., Vol. 2013, Page 574871, Year 2013	A.Tawfik	Entire	2.203
43	Comment on "Investigation of Hadron Multiplicity and Hadron Yield Ratios in Heavy-Ion Collisions"	Ukr. J. Phys., Vol. 85, Page 933, Year 2013	A. Tawfik, E. Gamal, H. Magdy	Theory, interpretation, and Script	0.329
42	Dynamical Fluctuations in Baryon-Meson Ratios	J. Phys. G, Vol. 40, Page 055109, Year 2013	A. Tawfik	Entire	3.456
41	Matter-Antimatter Asymmetry in heavy-ion collisions	Int. J. Theor. Phys., Vol. 51, Page 1396, Year 2012	A. Tawfik	Entire	1.184
40	Fluctuations of Particle Yield Ratios in Heavy-Ion Collisions	Indian J. Phys., Vol. 86, Page 1139, Year 2012	A. Tawfik	Entire	1.337
39	The effects of quantum entropy on bag constant	Indian J. Phys., Vol. 86, Page 1021, Year 2012	David E. Miller, Abdel Nasser Tawfik	Theory, interpretation, and Script	1.337
38	Event-by-Event Fluctuations of Particle Ratios in Heavy-Ion Collisions	Indian J. Phys., Vol. 86, Page 641, Year 2012	A. Tawfik	Entire	1.337
37	Phase Space and Dynamical Fluctuations of Kaon-to-Pion Ratios	Prog. Theor. Phys., Vol. 126, Page 279, Year 2011	A. Tawfik	Entire	1.45
36	In-medium modifications of Hadron properties.	Yukawa Int. Seminar on New Frontiers in QCD - Exotic Hadrons and Hadronic Matter (YKIS2006) 20 Nov - 8 Dec 2006. Kyoto, Japan	A. Tawfik	Entire	1.337

		Indian J. Phys., Vol. 85, Page 755, Year 2011			
35	Antiproton-to-Proton Ratios for ALICE Heavy-Ion Collisions	Nucl. Phys. A, Vol. 859, Page 63, Year 2011	A. Tawfik	Entire	2.202
34	Entanglement in condensates involving strong interactions	Appl. Math Info. Sci., Vol. 5, Page 239, Year 2011	D. E. Miller, A. Tawfik	Theory, and interpretation	1.232
33	Bulk and Shear Viscosity in Hagedorn Fluid	Ann. Phys. (Berlin), Vol. 522, Page 849, Year 2010	A. Tawfik, M. Wahba	Theory, interpretation, and Script	3.048
32	Particle ratios in heavy-ion collisions	Fizika B, Vol. 18, Page 141, Year 2009	A. Tawfik	Entire	0.373
31	Screening masses in thermal and dense medium	Soryushiron Kenkyu, Vol. 114, Page B48, Year 2006	A. Tawfik	Entire	0.32
30	A Universal description for the freezeout parameters in heavy-ion collisions	Nucl. Phys. A, Vol. 764, Page 387, Year 2006	A. Tawfik	Entire	2.202
29	On the conditions driving the chemical freeze-out	Europhys.Lett., vol.75, Page 420, Year 2006	A. Tawfik	Entire	2.095
28	The Freezeout Parameters in Heavy-Ion Collisions	hep-ph/0507252	A. Tawfik	Entire	
27	Quark-antiquark condensates in the hadronic phase	Phys. Lett. B, Vol. 623, Page 48, Year 2005	A. Tawfik, D. Toublan	Theory, interpretation, and Script	6.131
26	QCD phase diagram: A Comparison of lattice and hadron resonance gas model calculations	Phys. Rev. D, Vol. 71, Page 054502, Year 2005	A. Tawfik	Entire	4.643
25	The Influence of strange quarks on QCD phase diagram and chemical freeze-out: Results from the	8th International Conference on	A. Tawfik	Entire	3.456

	hadron resonance gas model	Strangeness in Quark Matter (SQM2004), Cape Town, South Africa, 15-20 Sep 2004. J. Phys. G, Vol. 31, Page S1105, Year 2005			
24	Finite temperature quantum correlations in SU(2)(c) quark states and quantum spin models	Acta Phys. Polon. B, Vol. 36, Page 801, Year 2005	S. Hamieh, <b>A. Tawfik</b>	Theory, interpretation, and Script	<b>0.85</b>
23	Entropy for color superconductivity in quark matter	Acta Phys. Polon. B, Vol. 35, Page 2165, Year 2004	David E. Miller, <b>Abdel-Nasser M. Tawfik</b>	Theory, interpretation, and Script	<b>0.85</b>
22	Heavy ion collisions and lattice QCD at finite baryon density	17th Int. Conf. on Ultra Relativistic Nucleus-Nucleus Collisions (QM2004), Oakland, California, 11-17 Jan 2004. J. Phys. G, Vol. 30, Page S1271, Year 2004	Krzysztof Redlich, Frithjof Karsch, <b>Abdelnasser Tawfik</b>	Theory, interpretation, and Script	<b>3.456</b>
21	The Effects of colored quark entropy on the bag pressure	J. Phys. G, Vol. 30, Page 731, Year 2004	David E. Miller, <b>Abdel-Nasser Tawfik</b>	Theory, interpretation, and Script	<b>3.456</b>
20	Entropy for colored quark states at finite temperature	Fizika B, Vol. 16, Page 17, Year 2007	David E. Miller, <b>Abdel-Nasser Tawfik</b>	Theory, interpretation, and Script	<b>0.373</b>
19	Thermodynamics at nonzero baryon number density: A Comparison of lattice and hadron resonance gas model calculations	Phys. Lett. B, Vol. 571, Page 67, Year 2003	F. Karsch, K. Redlich, <b>A. Tawfik</b>	Theory, interpretation, and Script	<b>6.131</b>
18	Hadron resonance mass spectrum and lattice QCD	Eur. Phys. J. C, Vol.	F. Karsch, K.	Theory,	<b>5.084</b>



	thermodynamics	29, Page 549, Year 2003	Redlich, <b>A. Tawfik</b>	interpretation, and Script	
17	On the deconfinement phase transition in heavy ion collisions	hep-ph/0104004	Abdelnasser M. Tawfik	Entire	
16	Factorial moments of Si-28 induced interactions with Ag(Br) nuclei	Heavy Ion Phys., Vol. 13, Page 213, Year 2001	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>0.322</b>
15	Factorial moments of the multiplicity distribution in Pb + Pb collisions at 158-A-GeV	J. Phys. G, Vol. 27, Page 2283, Year 2001	<b>A.M. Tawfik</b>	Entire	<b>3.456</b>
14	On the contributions of two particle correlation functions to the intermittent behavior in heavy ion collisions	Acta Phys.Hung. hep-ph/0012022	<b>Abdelnasser M. Tawfik</b>	Entire	
13	Levy stable law description of the intermittent behavior in Pb + Pb collisions at 158/A-GeV	Heavy Ion Phys., vol.12, Page 53, Year 2000	<b>A.M. Tawfik</b> , E. Ganssauge	Theory, interpretation, and Script	<b>0.322</b>
12	Angular distributions of light projectile fragments in deep inelastic Pb + Em interactions at 160-A-GeV	Eur. Phys. J. A, Vol. 6, Page 421, Year 1999	EMU-01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>2.736</b>
11	Nucleus nucleus collision as superposition of nucleon nucleus collisions	27th International Symposium on Multiparticle Dynamics (ISMD 97), Frascati, Italy, 8-12 Sep 1997, Nucl. Phys. Proc. Suppl., vol.71, Page 330, Year 1999	EMU-01 Collaboration (G.I. Orlova et al.).	Calculations	<b>0.88</b>
10	Fragmentation and multifragmentation of 10.6-A-GeV gold nuclei	Eur. Phys. J. A, Vol. 5, Page 429, Year 1999	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>2.736</b>
9	Multifractal analysis of particles produced in Au-197, S-32 and O-16 induced interactions at high-energies	Europhys. Lett., Vol. 44, Page 571, Year 1998	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>2.095</b>

8	Bounce-off in Au-197 induced collisions with Ag(Br) nuclei at 11.6-A-GeV/c	Eur. Phys. J .A, Vol. 2, Page 61, Year 1998	EMU01 Collaboration (M.I. Adamovich et al.).	Some calculations	<b>2.736</b>
7	Critical behavior in Au fragmentation at 10.7-A-GeV	Eur. Phys. J. A, Vol. 1, Page 77, Year 1998	EMU-1 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>2.736</b>
6	Charged particle multiplicities, densities and fluctuations in Pb+Pb interactions at 158AGeV	Phys. Lett .B, Vol. 407, Page 92, Year 1997	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>6.131</b>
5	He production in 158-A-GeV/c Pb on Pb interactions	Phys. Lett. B, Vol. 390, Page 445, Year 1997	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>6.131</b>
4	Multifragmentation of gold nuclei in the interactions with photoemulsion nuclei at 10.7-GeV/nucleon	Z. Phys. A, Vol. 359, Page 277, Year 1997	EMU-01/12 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>1.737</b>
3	Nuclear effect in higher dimensional factorial moment analysis of the O-16, S-32 and Au-197 emulsion interaction data at 200-A/GeV, 60-A/GeV/c and 11-A/GeV/c	Z. Phys. C, Vol. 76, Page 659, Year 1997	EMU-01 Collaboration (M.I. Adamovich et al.).	Some calculations	<b>1.737</b>
2	Produced particle multiplicity dependence on centrality in nucleus-nucleus collisions	J. Phys. G, Vol. 22, Page 1469, Year 1996	EMU01 Collaboration (M.I. Adamovich et al.),	Some calculations	<b>3.456</b>
1	Slow target associated particle production in Li-6 Em collisions at 4.5-A/GeV/c	Int. J. Mod. Phys. E, Vol. 2, Page 835, Year 1993	M.M. Sherif, M.K. Hegab, A. Abdelsalam, S.A. El-Sharkawy, and A.M. Tawfik	Calculations	<b>1.343</b>

### Third: Statistical Mechanics (Generic Nonextensive Statistics)

NO	Paper Title	Journal & Publication Date	Authors	Role of Authors	Impact Factor
10	Extensive and nonextensive statistical mechanics: Exp and log distribution functions	<i>Mod.Phys.Lett.B</i> 38 (2024) 08, 2450042	A. Tawfik, A. Aboanbar, A. Ghoneim	Theory, interpretation, and Script	
9	K <sup>+</sup> /π <sup>+</sup> horn: appropriate statistics for nonextensive particle production and nonequilibrium phase transition	<u><i>Phys.Scripta</i></u> 2108.10320 [hep-ph]	<b>A Tawfik</b> , E. R. Abo Elyazeed, H. Yassin	Theory, interpretation, and Script	<b>3.081</b>

8	Transverse momentum spectra of strange hadrons within extensive and nonextensive statistics	Phys.Scripta Vol. 95, No. 7, Page 7, Year 2020 1912.01404 [hep-ph]	H. Yassin, E. R. Abo Elyazeed, <b>A. Tawfik.</b>	Theory, interpretation, and Script	<b>2.151</b>
7	Extensive/nonextensive statistics for pT distributions of various charged particles produced in p+p and A+A collisions in a wide range of energies	<i>Ukrainian J. Phys.</i> Vol. 67, Pages 393, Year 2022 1905.12756 [hep-ph]	A.Tawfik, H. Yassin, E. R. Abo Elyazeed	Theory, interpretation, and Script	<b>0.84</b>
6	Particle Yields and Ratios within Equilibrium and Non-Equilibrium Statistics	<i>Europhys. Lett.</i> Vol. 126, Page 41001, Year 2019 1812.11347 [hep-ph]	<b>A. Tawfik</b> , H. Yassin, E. R. Abo Elyazeed	Theory, interpretation, and Script	<b>1.886</b>
5	Chemical freezeout parameters within generic nonextensive statistics	<i>Indian J. Phys.</i> , Vol. 92, Pages 1325-1335, Year 2018	<b>A.Tawfik</b> , H. Yassin, E. R. Abo Elyazeed	Theory, interpretation, and Script	<b>0.967</b>
4	Lattice QCD thermodynamics and RHIC-BES particle production within generic nonextensive statistics	<i>Phys.Part.Nucl.Lett.</i> , Vol. 15, Pages 199-209, Year 2018	<b>A. Tawfik</b>	Entire	<b>0.681</b>
3	Baryon-to-pion ratios within generic (non)extensive statistics	PoS ICHEP2016 (2016) 1153	<b>A. Tawfik</b>	Entire	<b>1.01</b>
2	On thermodynamic self-consistency of generic axiomatic-nonextensive statistics	<i>Chin. Phys. C</i> , Vol. 41, Page 053107, Year 2017	<b>A. Tawfik</b> , H. Yassin, E. R. Abo Elyazeed	Theory, interpretation, and Script	<b>5.084</b>
1	Axiomatic nonextensive statistics at NICA energies	<i>Eur. Phys. J. A</i> , Vol. 52, Page 253, Year 2016	<b>A. Tawfik</b>	Entire	<b>2.373</b>

## Fourth: Computational Mathematics (Algorithms and Hard/Software)

NO.	Paper Title	Journal & Publication Date	Authors	Role of Authors	Impact Factor
9	CEPC Technical Design Report -- Accelerator	2312.14363 [physics.acc-ph]	CEPC Study Group	Script	
8	Artificial Intelligence for the Electron Ion Collider (AI4EIC)	<i>Comput Softw Big Sci</i> 8, 5 (2024)	C. Allaire, R. et al.	Script	<b>5.542</b>

		2307.08593 [physics.acc-ph]			
7	Range-Suffrage Algorithm for Grid Task	Int. J. Applied and Phys. Science Vol. 1, Page 42., Year 2015 10.20469/ijaps.50004-2	N. M. Reda, <b>A. Tawfik</b> , M. A. Marzok and S. M. Khamis	Theory and Interpretation	<b>1.59</b>
6	Sort-Mid tasks scheduling algorithm in grid computing	J. Adv. Studies, Vol. 06, Page 987, Year 2015	Naglaa M. Reda, <b>A. Tawfik</b> , Mohamed A. Marzok and Soheir M. Khamis	Theory, interpretation, and Script	<b>0.599</b>
5	Calibrated Fair Measures of Measure: Indices to Quantify an Individual's Scientific Research Output	Can. J. Phys., Vol. 93, Page 745, Year 2015	<b>A. Tawfik</b>	Entire	<b>0.724</b>
4	Covid-19 in North Africa: Comparative analysis by macroscopic growth laws	Int. J. Mod. Phys. C, Vol. 32, No. 05, Page 2150063, Year 2021	P. Castorina, D. Carco, D. Lanteri, <b>A. N. Tawfik</b> and A. Trabels	Theory and Interpretation	<b>1.11</b>
3	MIRACLE Lab: A fast automatic system to perform the analysis of high multiplicity events in nuclear emulsion chambers	Nucl. Instrum. Meth. A, Vol. 416, Page 136, Year 1998	E. Ganssauge, <b>A.M. Tawfik</b>	Theory, interpretation, and Script	<b>1.216</b>
2	MIRACLE Lab: Track recognition and event track reconstruction in nuclear emulsion chambers	Comput. Phys. Commun., Vol. 118, Page 49, Year 1999	<b>A.M. Tawfik</b> , E. Ganssauge	Theory, interpretation, and Script	<b>3.112</b>
1	apeNEXT: Multi-TFlops Computer for Elementary Particle Physics	Parallel Computing Proceeding 2003	apeNEXT project	apeNEXT machine library	