

## CV

Prof. Dr. Atalla Mohammed Ahmed Elhanbaly  
Professor of Plasma Physics, Ph.D. & Ex-Head of Physics Department

Name	Atalla Elhanbaly		Birth Date	24.10.1961	Gender	Male
County	Egypt	Title	Prof. Dr.	Research field	Plasma Physics	
Affiliation	Physics Department, Faculty of Science, Mansoura University, Mansoura 35516, EGYPT.			Degree	Full Professor	
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Education Experience	<ul style="list-style-type: none"> <li>- B. Sc. degree in Physics by grade "Very Good" in May 1984, Faculty of Science, Mansoura University (MU).</li> <li>- M. Sc. in Physics (Theoretical Physics), 1988, MU Faculty of Science, Egypt.</li> <li>- Ph. D. in Physics (Plasma Physics), 1993, MU Faculty of Science, Egypt.</li> </ul>					
Working Experience	<ul style="list-style-type: none"> <li>• 1986 – 1989: Demonstrator of Physics, Faculty of Science, Mansoura University.</li> <li>• 1989 – 1993: Assistant Lecturer, Physics Department, MU Faculty of Science.</li> <li>• 1993 – 1999: Assistant Professor, Physics Department, MU Faculty of Science.</li> <li>• 1999 – 2004: Associate Professor, Physics Department, MU Faculty of Science.</li> <li>• 2004 – till now: Full Professor, Physics Department, MU Faculty of Science.</li> <li>• Visiting Professor, Faculty of Engineering, Brunel University, UK, 1996.</li> <li>• Associate Professor, Faculty of Science, Al-Qaseem University, Saudi Arabia, 1999 - 2010.</li> </ul>					
Representative publications or research achievements	<p>More than 80 papers in cited journals and international conferences:</p> <ol style="list-style-type: none"> <li>1. Propagation features of head-on collision dust acoustic solitary waves in four-component quantum plasmas, <i>Waves in Random and Complex Media</i> 30 (4), 704, 2020.</li> <li>2. Effects of the ionic masses and positron density on the damped behavior in nonthermal collisional plasmas, <i>Indian Journal of Physics</i>, 1, 2020.</li> <li>3. Propagation of Solitary Waves and Double-Layers in Electron-Positron Pair Plasmas with Stationary Ions and Nonextensive Electrons, <i>International Journal of Applied and Computational Mathematics</i> 5 (4), 113, 2019.</li> <li>4. An Analytical Study of Fractional Klein-Kramers Approximations for Describing Anomalous Diffusion of Energetic Particles, <i>Journal of Statistical Physics</i> 174 (4), 830, 2019.</li> <li>5. Analytical solution of the space-time fractional hyperdiffusion equation, <i>Physica A</i>: 510, 178, 2018.</li> <li>6. On the growth rate instability of nonextensively opposite polarity dusty plasmas, <i>Advances in Space Research</i> 62 (7), 1728, 2018.</li> <li>7. General solution of a fractional Parker diffusion-convection equation describing the superdiffusive transport of energetic particles, <i>The European Physical Journal Plus</i> 133 (6), 209, 2018.</li> <li>8. Plasma Parameters Effects on Dust Acoustic Solitary Waves in Dusty Plasmas of Four Components, <i>Advances in Mathematical Physics</i>, doi.org/10.1155/2018/7935317, 2018.</li> <li>9. Analytical study of fractional equations describing anomalous diffusion of energetic particles, <i>Journal of Physics: Conference Series</i> 869 (1), 012050, 2017.</li> <li>10. Arbitrary amplitude double-layers in four-component dusty plasma with q-non-extensive electrons and ions, <i>Physics of Plasmas</i> 24 (5), 053704, 2017.</li> <li>11. Arbitrary amplitude dust-acoustic waves in four-component dusty plasma using non-extensive electrons and ions distributions-soliton solution, <i>Physics of Plasmas</i> 24 (1), 013704, 2017.</li> <li>12. Shaping the solar wind temperature anisotropy by the interplay of electron and proton instabilities, <i>Astrophysics and Space Science</i> 362 (1), 13, 2017.</li> <li>13. The interplay of the solar wind proton core and halo populations: EMIC instability, <i>Journal of Geophysical Research: Space Physics</i> 121 (7), 6031-6047, 2016.</li> <li>14. Effects of suprathermal electrons on the proton temperature anisotropy in space plasmas: Electromagnetic ion-cyclotron instability, <i>Astrophysics and Space Science</i> 361 (6), 1-12, 2017.</li> <li>15. Nonlinear Dust Acoustic Waves in Dissipative Space Dusty Plasmas with Suprathermal Electrons and Nonextensive Ions, <i>Communications in Theoretical Physics</i> 65 (5), 606, 2016.</li> <li>16. Self-similar solutions for some nonlinear evolution equations: KdV, mKdV and Burgers equations, <i>Journal of the Association of Arab Universities for Basic and Applied Sciences</i> 19, 44-51, 2016.</li> <li>17. Effects of electrons on the electromagnetic ion cyclotron instability: Solar wind implications, <i>The Astrophysical Journal</i> 814 (1), 34, 2015.</li> <li>18. Effect of nonthermality fraction on dust acoustic growth rate in inhomogeneous viscous dusty plasmas, <i>Astrophysics and Space Science</i> 356 (2), 269-276, 2015.</li> <li>19. Effect of electron beam on the properties of electron-acoustic rogue waves, <i>Journal of Plasma Physics</i> 81 (02),</li> </ol>					

	<p>905810204, 2015.</p> <p>20. Electron acoustic soliton energy of the Kadomtsev-Petviashvili equation in the Earth's magnetotail region at critical ion density, <i>Astrophysics and Space Science</i> 349 (1), 197-203, 2014.</p> <p>21. Adomian decomposition method for solving fractional nonlinear differential equations, <i>Applied Mathematics and Computation</i> 182 (1), 313-324, 2006.</p> <p>22. On the solution of the integro-differential fragmentation equation with continuous mass loss, <i>Journal of Physics A: Mathematical and General</i> 36 (30), 8311, 2003.</p> <p>23. Group classification and symmetry reduction of variable coefficient nonlinear diffusion-convection equation, <i>Journal of Physics A: Mathematical and General</i> 35 (38), 8055, 2002.</p> <p>24. Exact solutions of the collisional Vlasov equation, <i>Journal of plasma physics</i> 59 (01), 169-177, 1998.</p> <p>25. Modulation of the non-linear ion acoustic waves in a plasma consisting of warm ions and isothermal electrons, <i>Il Nuovo Cimento D</i> 17 (6), 547-556, 1995.</p> <p>26. Two-stream instability in the presence of longitudinal magnetic field, <i>Astrophysics and space science</i> 153 (1), 75-85, 1989.</p>
<p>Presentation in Important Conference</p>	<p>Participated in many conferences.</p> <ul style="list-style-type: none"> <li>- 3rd International Conference on Advanced Materials &amp; Their Applications, National Research Centre, Egypt, January, 2015.</li> <li>- 9th Conference on Nuclear and Particle Physics, Luxor-Aswan, Egypt, October, 2015.</li> <li>- 10th Conference on Nuclear and Particle Physics, Hurghada, Egypt, October, 2017.</li> </ul> <p>Review scientific articles in the field of Plasma Physics and Theoretical Physics</p>