



SDI Review Form 1.6

PART 1:

Journal Name:	Physical Review & Research International
Manuscript Number:	2013_PRRI_3746
Title of the Manuscript:	SOME SALIENT FEATURES OF NONLINEAR WAVE PROPAGATION IN ROTATING PLASMAS

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Reviews on "SOME SALIENT FEATURES OF NONLINEAR WAVE PROPAGATION IN ROTATING PLASMAS" authored by G C Das</p> <p>In this article, the author has derived nonlinear Sagdeev like-wave equation in order to study the ion- acoustic wave in a simple plasma under the effect of Coriolis. He has given a main focus on the occurrence of compressive and rarefactive solitary waves along with their explosions or collapses. He finds that the effect of nonlinearity leads shock waves, double layers, and sinh-wave types of structures in such plasmas.</p> <p>The paper is written well, but it needs some modifications before it is accepted for publication in Physical Review and Research International. For example:</p> <p>1) The author has not given an updated literature on the solitary waves and solitons. In fact a large number of articles have been published in the last 5 years. For</p>	<p>• Thanks to Reviewer for their fruitful comments and critical comments as well about the merit of the paper. Now the paper has been modified with due respect to the Reviewer(s) comments.</p> <p>• Reviewer is perfectly O.K. It is purely theoretical works keeping in mind its possible application in astrophysics. It is now an open fact that the conclusion on saying the rotation, however small in magnitude might be, has the effective role especially in the problems of astrophysics, wherein rotation should be taken proper account in the dynamical behaviours of waves. We have shown many salient features introduced by Coriolis force which can not be found in simple fully ionized non-rotating plasma coexistences with electrons and ions. Many results are yet to be known. Further, observations claim that the problems on studying waves in plasmas must be having due consideration of rotation otherwise study will not give full satisfactory results as evidence from the present studies, rather it gives erroneous in observations. Considered plasma model is very much parallel to earlier model in slow rotating stars & Cosmic physics,</p>



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	<p>example:</p> <ol style="list-style-type: none"> 1. Physics of Plasmas (2008) 15, 072105. 2. Plasma Sources Science and Technology (2008) 17, 035005. 3. Physics of Plasmas (2009) 12, 072112. 4. IEEE Transactions on Plasma Science (2010) 38, 452. 5. Physics of Plasmas (2011) 18, 042304. 6. Physica D (2011) 240, 310. 7. Journal of The Physical Society of Japan (2011) 80, 044502. 8. Plasma Physics and Controlled Fusion (2011) 53, 065012. 9. Physics of Plasmas (2012) 19, 012114. 10. Physics of Plasmas (2012) 19 032107. 11. Physics of Plasmas (2013) 19, 032112. <p>In order to strengthen the article, the above references may be cited.</p> <p>2) The author has simply discussed his results and did not compare them with the observations of the other investigators. The comparison of the results will further</p>	<p>and studied by many pioneer researchers. Apart from all, we are probably the leading & pioneer workers in studying the nonlinear wave in slow rotating plasmas. Some application and evidences have shown (by us) the potentiality on doing research in rotating space-plasmas and could be applicable interest as an advanced knowledge in nonlinear wave dynamics(e.g. Das & Chakraborty 2011, 2011).</p> <ul style="list-style-type: none"> ● Most of the references cited by the Reviewer are incorporated in revised manuscript. We also included some new references of research papers published recently. We thank the Reviewer for the kind help in bring the paper in present form. ● Overall results are now discussed thoroughly. Figures able to discuss the nature on the existences of different solitary waves and analytical results are derived by new methods(tanh- or sech-method) in contrast to steady state method (which was using earlier during last several decades), and supported by the graphical presentation. ● Further the observations are rewritten in simple scientific English. Hope that modified manuscript will now be suitable for the journal.
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	<p>strengthen the manuscript.</p> <p>3) Although the author has tried to show the results in the limiting cases of $\theta \rightarrow 0^\circ$ and $\theta \rightarrow 90^\circ$, he has not made a discussion of the same.</p> <p>In addition, there are many typographical mistakes throughout the manuscript, which should be rectified. For example,</p> <p>Further the plasma is having under the influence of Coriolis force generated from slow rotation with angular...,</p> <p>velocity m_i is the mass of the ions moving w</p> <p>Study on the soliton solution, derives from the fir equation, is fully depend on the variation of A_1 an of rotational (dependable on θ) and Mach number M</p> <p>soliton wave profile. This is described by the fact tha there is a generation of high electric force and conse the profile of soliton. Because of high energy the p particles as a result density depression occurs and p</p>	
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Minor REVISION comments		
<u>Optional/General</u> comments	Work is good but the presentation is not up to the mark.	