



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_34248
Title of the Manuscript:	Hilbert scheme and multiplet matter content
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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



SDI Review Form 1.6

PART 1: 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>The way authors introduce their works is not very clear. I can't see the relation with D-branes and superstring theory as he mentioned. Besides, no connection (even mathematically) to compactification is obvious. I suggest that authors put a look on the following works: geometric modeling, Math. Vis., pages 237–247. Springer, Berlin, 2006.</p> <p>a-Dustin A. Cartwright, Daniel Erman, Mauricio Velasco, and Bianca Viray. Hilbert schemes of 8 points. Algebra Number Theory, 3(7):763–795, 2009.</p> <p>b-Gianfranco Casnati, Joachim Jelisiejew, and Roberto Notari. Irreducibility of the Gorenstein loci of Hilbert schemes via ray families. Algebra Number Theory, 9(7):1525–1570, 2015.</p> <p>c-Gianfranco Casnati and Roberto Notari. On the Gorenstein locus of some punctual Hilbert schemes. J. Pure Appl. Algebra, 213(11):2055–2074, 2009.</p> <p>then try to rewrite the paper in a more clear way. Motivations must be addressed more properly. Even if the mathematics or the calculation done is correct, without convincing physical implications, the paper looks metaphysical.</p> <p>A revision is required.</p>	<p>The article is devoted to the studying of the orbifolds for two models: $1/3(1,1,1)$ and $1/13(1,2,10)$. All the structure of material is aimed at the calculation of Hilbert scheme according to Nakamura's algorithm. The result of calculation, especially for the model $1/3(1,1,1)$ is explained within the Euler-Poincare characteristic as the number of generations of Standard Model. As is known from physics all physical information at high energy follow from the D-brane ideology. So, it was stressed in the introduction, that in this cases of orbifold as the base of vector bundle represented by D-brane, the physical information can be read out from the base." At every stage of researches in D-brane theory physicists searched for experimentally observable consequences of the theory. In this aspect, it was observed that the number of generations of quarks and leptons is connected with the structure of the manifold of extra dimensions. Thus, the number of generations is a topological invariant, associated with the structure of Calabi-Yau or orbifolds."</p>
Minor REVISION comments		
Optional/General comments		