



PART 1:

Journal Name:	Physical Science International Journal
Manuscript Number:	2014_PSIJ_9933
Title of the Manuscript:	Numerical Simulation of Spin Glass State in Diluted Magnetic Materials Using Ising Spin Model in 2D with Distance Dependent interactions

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<p>All the replies by the authors are unsatisfactory.</p> <p>The authors claim Ref.[2] contains data for different sizes and ρ values, but this assertion is in contrast to what is written in Table 1 of Ref.[2] where $\rho=3,4$ and $L=30,40$ are present.</p> <p>The authors insist in claiming that “there is no long-range order in spin glasses”, but this is definitely wrong. The spin glass phase has long range order (of the spin glass kind, obviously). This fact witnesses that authors ignore some fundamentals of this field of research.</p> <p>In my comment I did not criticised the fact that the diluted version is faster to simulate; I did criticised the claim that the diluted model is new (it was already introduced in Ref.[11]). So authors' reply on this point is meaningless.</p> <p>The authors' assertion that there is no need to use the finite size scaling in the present case is unacceptable. Finite size scaling is required if one is willing to identify a critical point and critical properties. Even when working with overlaps.</p>	<p>Yes, We mentioned these things in our previous paper so what is wrong with this? We didn't use the data for that paper. I think the reviewer's comment is baseless.</p> <p>By the way, spin glass state is a consequence of conflict in interaction between ferromagnetic and antiferromagnetic interactions. Because of this conflict in interaction the system becomes frustrated system. This is a basic concept in this regard.</p> <p>Spin glasses differ from ferromagnetic materials by the fact that after the external magnetic field is removed from a ferromagnetic substance, the magnetization remains indefinitely at the remanent value. Paramagnetic materials differ from spin glasses by the fact that, after the external magnetic field is removed, the magnetization rapidly falls to zero, with no remanent magnetization. This is the fact, therefore I recommend the reviewer to read related articles before commenting such kind of papers. Sorry to say, I think there is a problem in understanding of spin glass concepts from reviewer side.</p> <p>We said, finite size scaling is very important in order to identify spin glass parameters such as Binder parameter, magnetic susceptibility and correlation functions but here we used overlap order parameter in order to give analysis about the spin glass state. Again, the reviewer is commenting unnecessarily in this regard.</p>