



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
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
Type of the Article	Original Research 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.

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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)
<u>Compulsory</u> REVISION comments		
<u>Minor</u> REVISION comments		



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Optional/General comments

First of all it presents data that was already contained in a previous publication by the same authors, see Ref. [2].

The manuscript contains several wrong assertions. For example, in the introduction the sentence "This implies that there is no long-range order in spin glasses" makes no sense.

At the end of page 3 the authors claim to introduce a diluted version for the model, but this is not true, as the diluted version has been already proposed in Ref.[11].

Data analysis is largely below the standards in the field of spin glasses.

Showing only $P(q)$, as the authors do, is not enough to understand whether a spin glass phase exists at low temperatures. Indeed the 2D short range Edwards-Anderson model has no phase transition at finite temperatures, but still has very broad $P(q)$, that eventually will shrink to a delta function in the thermodynamical limit.

Finite size scaling analysis is completely absent from the manuscript and this not acceptable.

Moreover the number of samples (100-200) is definitely too small in order to obtain any reliable result.

Convergence to equilibrium and thermalization tests are not shown at all.

I think that half of references are cited in places where they are meaningless.

Note: Anonymous Reviewer