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

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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)*
Compulsory REVISION comments	This paper is a new tentative to describe magnetic interactions in a diluted spin glass and to find the critical exponents associated with the phase transition at the freezing temperature. Thirty years ago, spin glass properties have been the subject of many controversies about the existence or the absence of a thermodynamic phase transition. The following conclusions have been established: The freezing temperature is characterized by an absence of divergence of the main contribution to the magnetic susceptibility proportional to the magnetic field H while the complementary contribution varying with H^3diverges [1,2]. Experimental critical exponents have been deduced for the diverging contributions: Mean field theory: G. Parisi and G. Toulouse J. Physique Lettres 41, (1980) L-36 Experimental work : Berton, J. Chaussy, J. Odin, R. Rammal and R. Tournier, Magnetocaloric investigation of (H,T)	

	phase diagram of CuMn spin glass, J. Physique – LETTRES 43, (1982) L-153- L 158* The numerical calculations show the existence of a lot of spins in zero molecular field and the existence of a phase transition simulating various space dimensions and samples. The calculations seem to be in good agreement with experimental resultsconcerning the diverging susceptibility exponents. I believe that the paper presentation is too closed in a virtual world instead of opening the window to real spin glasses measured in large sizes that computers cannot realize. It is also the best way to evaluate the quality of the used assumptions. For example there is no conclusion concerning the expected scaling laws obeyed by spin glasses with RKKY interactions: see A. Blandin thesis in Orsay 50 years ago and the following paper. J. Souletie and R. Tournier, Specific heat and magnetization in dilute magnetic alloys, J. Low Temperature Physics, 1, (1969) 95-108. It is easy to vary the concentration of spins and to find a spin density in zero molecular field which is independent of the composition This paper can be accepted in this state.	

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	Nevertheless, I believe that it can be improved to be convincing. **Comments received by email**	
Minor REVISION comments		
Optional/General comments		

Reviewer Details:

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