

Abstract Submitted  
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**A Model of Smarandache Geometry in Quantum Mechanics** ION PATRASCU, Fratii Buzesti College, Craiova, Romania — Let's consider a simple model of a Smarandache Geometry built in the following way: - an Euclidean plane  $\alpha$ , where through any exterior point to a given line (d) there is only one parallel line; - and an Elliptic sphere (S), where lines are defined as the big sphere circles, and points are the regular points on the sphere's surface; this is a Riemannian model of an Elliptic Geometry; - suppose the plane  $\alpha$  cuts the sphere (S) upon a big sphere circle (C) into two equal parts; let's A and B be two distinct points on (C), which simultaneously belongs to both: the Euclidean plane  $\alpha$  and to the Non-Euclidean sphere (S); therefore, the plane  $\alpha$  together with the sphere (S) form a model (M) of a Smarandache Geometry. This model can be interpreted in Quantum Mechanics as follows: - **a particle (P) that it is and it is not in a place in the same time**, is like this circle (C) which is a line [if (C) is referred to the sphere (S)] and it is not a line [if (C) is referred to the plane  $\alpha$ ] in the model (M) simultaneously; - **a particle (R) which is in two places in the same time**, is like line AB (i.e. the line which passes through the above distinct points A and B) in the model (M); which means that 'line' AB is a straight line in the classical sense in the Euclidean plane  $\alpha$ , while 'line' AB is the big sphere circle (C) in the Non-Euclidean sphere (S), therefore line AB is simultaneously in two different places (and has two different forms).

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