MedCrave Step into the World of Research
International Journal of Complementary & Alternative Medicine

Short Communication

Open Access CrossMark

For description of the wave (quantum) component of all living beings: A nonlinear Schrodinger equation is offered analog of the Kardar-Parisi-Zhang nonlinear mathematical model

Abstract

Everything material is material body and nonlinear electromagnetic field (NEMF1), which is the basis of the duality wave-particle. All living beings have one more NEMF (NEMF2) - a weak informational field that rules and regulates everything in the body not with its strength, but with the information it carries, which makes it essential for the health of all living beings. The article first explains why the Kardar-Parisi-Zhang nonlinear mathematical model is universally applicable to all states in dynamic nonequilibrium. At the roots of this success is the fact that all dynamic events are successfully described only with nonlinear equations and Kardar-Parisi-Zhang mathematical model is a nonlinear differential equation. The model proved to be successfully applicable to a wide range of events: growing bacterial colonies, growing crystals, aggregating colloidal clusters, the dynamic of burning regions of forest or grassland, even the dynamic of eroded by acid rain statues, etc. Since everything material is a material body and a wave component - nonlinear electromagnetic field (NEMF1) and every living being is NEMF1 + NEMF2, by analogy with the Kardar-Parisi-Zhang nonlinear mathematical model, this article offers a nonlinear Schrödinger equation to describe the wave component (NEMF1) of everything material and NEMF1 + NEMF2 of every living being.

Keywords: describing dynamic events, nonlinear equations for dynamic events, Kardar-Parisi-Zhang model, dynamic quantum events, nonlinear Schrödinger equation

Volume 16 Issue 6 - 2023

Maria Kuman
Holistic Research Institute, USA

Correspondence: Maria Kuman, Holistic Research Institute, Knoxville, USA, Email holisticar@mariakuman.com

Received: November 01, 2023 | **Published:** November 13, 2023

Introduction

Since all particles are material particles and NEMF waves,[1] at the cryogenic temperature of 40 K (of liquid helium), which is close to the absolute zero (-2730 K), all particles stop behaving as particles and start behaving as waves. My explanation[1] of this phenomenon is simple – at these very low temperatures the particles don't have energy to spin and when they don't spin they are waves. At these very low temperatures, the particles (which are now waves) in optical cavity couple with electron excitations of solids forming quasiparticles called polaritons.[2] Polaritons are well described by the nonlinear equation of Kardar-Parisi-Zhang mathematical model.

The Kardar-Parisi-Zhang nonlinear mathematical model

The Kardar-Parisi-Zhang (KPZ) nonlinear mathematical model was created in 1986. Since then, it has been successfully used to describe a wide range of events: growing bacterial colonies, growing crystals, aggregating colloidal clusters, the dynamics of burning regions of forest or grassland, even the dynamics of eroded by acid rain statues, etc.[2] In this article, I am going to explain why the KPZ model is so universal. The KPZ model, is a partial differential equation describing nonlinear growth.[3]

$$\partial h / \partial t = \nu \Delta h + \lambda / 2\ (\nabla h)^2 + \eta(x,t) \qquad (1)$$

The first term on the right side describes the relaxation of the interface at the border of two media with a surface tension ν. The second term is the lowest order nonlinear term, the importance of which was justified by the Eden mathematical model.[4] The third term is the noise term with Gaussian distribution.

$$\langle \eta(x,t)\eta(x',t') \rangle = 2D\delta(x-x') \qquad \delta(t-t');$$
$$\eta(x,t) = 0;$$

The authors of the KPZ nonlinear mathematical model[3] showed that their equation (1) can be transformed into two other useful and more familiar forms: First, when the nonlinear term in eqn. (1) is zero (vorticities-free case), under the transformation $W(x,\ t) = exp\ [(\lambda / 2\nu)\ h(\mathbf{x},t)]$ (where W is a diffusion variable) eqn. (1) is transformed into Burger's diffusion equation (2).

$$\partial W / \partial t = \nu \Delta W + \ (\lambda / 2\nu)\ W\eta(x,t) \qquad (2)$$

The second term on the right side of eqn. (2) is a time-dependent random potential.[5] The authors of the KPZ nonlinear mathematical model[3] also showed that when the nonlinear term in the KPZ eqn. (1) is zero,[5] under the transformation $v(x,\ t) = -\nabla h(\mathbf{x},t)$ the equation (1) transforms into the diffusion equation (3), where v is the speed of diffusion.

$$\partial v / \partial t = \nu \Delta v - \lambda v . \Delta v - \nabla \eta(x,t) \qquad (3)$$

Unfortunately, the created KPZ nonlinear mathematical model is one-dimensional. However, computer simulation of the phase dynamics in 1+1 dimensions gave vortex – antivortex pairs, and their dynamics was still describable by the KPZ nonlinear mathematical model.

My Studies of the NEMF

Our science presently believes that the whole space is vacuum. This belief does not allow us to speak about Black Holes because

there cannot be holes in a vacuum. In my article,[6] I explained that if everything material is a material body and nonlinear electromagnetic field (NEMF) (which explains the dualism wave – particle), it is because the whole material world was created by Black Holes of anti-matter spinning in the Space Matrix NEMF (spinning in vacuum cannot create mater, but spinning in NEMF can create matter). Also, only after we accept the fact that the Space Matrix (from which the Universe was created) is NEMF, the word Black Hole makes sense (hole in NEMF). Why is the Space Matrix, from which the whole Universe was created, nonlinear electromagnetic field (NEMF)?

Nonlinear fields (NEMFs) do not dissipate and can imprint information. The Creator created a space of this not dissipating NEMF that can imprint information, then He imprinted on it the three-dimensional holographic image of the Universe to be, and the Universe was created. This made everything material - a material body and NEMF. In my article[7], I explained that the NEMF of each material is the NEMF of the Space Matrix, from which the whole material world was created, with imprinted on it informational field (specific frequencies) of the material. If so, two particles which are material particles with material-specific NEMFs (the NEMF of the Space Matrix with the imprinted information of the specific material) will be able to communicate though the NEMF of the Space Matrix between them, which explains the entanglement of particles at very large distances even when they have never interacted before.[8]

All living beings have a second NEMF (NEMF2, which is weak informational field) magnetically attached to the NEMF1 of the material bogy. This weak informational field (NEMF2) rules and regulates everything in the material bodies of all living beings, not with its strength but with the information it carries. This makes NEMF2 essential for the health and wellbeing of all living beings. The waves of both fields (NEMF1 and NEMF2) can be described only with nonlinear Schrödinger equation – analog of the Kaizer-Parisi-Zang nonlinear equation.

Nonlinear Schrodinger equation analog to the KPZ equation

The idea of writing nonlinear Schrödinger equation came from my amazement that the eqn. (1) of the KPZ nonlinear mathematical model without the nonlinear term resembles the Schrödinger equation describing the wave ψ (with wavelength λ) of the material-specific NEMF1 of everything material and NEMF1 + NEMF2 of all living beings.

$$(ih/2\pi)\partial\psi/\partial t = (ih/2\pi)^2(1/2m)\Delta\psi + V(x,t)\psi; \quad (4)$$

$$with\ \psi(x,t) = \psi(x)\ exp\ (E_n t/(ih/2\pi)^2)$$

With transformation, which contains nonlinear term, the Schrödinger equation (4) can be written in a nonlinear form similar to the KPZ nonlinear mathematical model as

$$(ih/2\pi)\partial\psi/\partial t = (ih/2\pi)^2(1/2m)\Delta\psi + (\lambda/2)(\nabla\psi)^2 + V(x,t)\psi, \quad (5)$$

The offered here nonlinear Schrödinger equation (5) should be able to describe the dynamics of the quantum events of the NEMF1 of everything material (and NEMF1 + NEMF2 of all living beings with different V(x, t)) just as successfully as KPZ model describes the dynamics of material growths. This nonlinear Schrödinger equation describes the wave ψ (with wavelength λ) of the material-specific NEMF1 (or NEMF1 + NEMF2 of all living beings) in the way the KPZ mathematical model describes the dynamics of the non-equilibrium states of the material half.

Conclusion

The article explained that the KPZ nonlinear mathematical model is so universal because only nonlinear equations can describe dynamics. Considering the universality of the KPZ model, we need to further develop two- and three-dimensional versions of the model. Also, considering the fact that everything material is a material body and a wave form NEMF1 and all living beings are the material body NEMF1 + the weak informational NEMF2 of all living beings, the article offers a nonlinear Schrödinger equation to describe the dynamics of the wave form NEMF.

Acknowledgments

None.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Funding

None.

References

1. Kuman M. The Dualism wave-particle and the role of spin in it. *Global Journal of Science Frontier Research (A)*. 2021;21(5).
2. Miller J. Polariton condensates show their nonequilibrium side. *Physics Today*. 2022;75(11):16–18.
3. Kardar G Parisi, Zhang YC. Dynamic scaling of growing interfaces. *Physical Review Letters*. 1986;56(889).
4. Eden M. *Proceedings of the fourth Berkeley Symposium on statistics and probability*. Berkley; USA; 1961.
5. Burger M. *A nonlinear diffusion equation*. Riedel; Boston; 1974.
6. Kuman M. How was the material World created? – Origin of Its NEMF. *Open Acc J Math Theor Phy*. 2019;2(2):34–38.
7. Kuman M. The mystery of superfluid solids revealed. *Global Journal of Science Frontier Research (A)*. 2022;22(5).
8. Kuman M. Explaining the entanglement of particles and the ruled-out locality in quantum mechanics. *Global Journal of Science Frontier Research (A)*. 2023;23(6).