

## PUBLICATIONS

J. X. Zheng-Johansson

MANUSCRIPTS NOT PUBLISHED /IN PREPARATION

- [1] Zheng-Johansson J X, "**Matrix formulation of quantum mechanics for IED particles**", in draft, 2013.
- [2] Zheng-Johansson J X, "**Violation of Bell inequality by the IED particle**", in preparation, 2011, 2013.
- [3] Zheng-Johansson J X, "**Relativistic quantum mechanics of IED particle: An extended treatment**", in manuscript, 2012, 2013; extended edition tentative for book publication (Springer, invited).
- [4] Zheng-Johansson J X, "**A compilation of action integrals and Heisenberg relations of typical systems**", in manuscript, Dec, 2012, 2013.
- [5] Zheng-Johansson J X, "**A general theory of transition probability**", in preparation, 2013.
- [6] Zheng-Johansson J X, "**An *ab initio* prediction of the numerical value of Planck constant**", in preparation, 2012, 2013-.
- [7] J. X. Zheng-Johansson, "**Quantum Electrodynamics of IED Particle**", in draft, 2008, 2013-.
- [8] J. X. Zheng-Johansson, "**Quantum Gravity of IED Particle**", in draft, 2008, 2013-.
- [9] J. X. Zheng-Johansson, "**Orientation quantization of angular momentum inferred from quantum-mechanical and classical electrodynamic stability conditions**", in manuscript, 2006; 2013-.
- [10] J. X. Zheng-Johansson, " **$2n^2$  shell filling rule of chemical elements: An inference based on first principles**", have scheme (extended work of Paper [9]), 2006, 2013-.
- [11] J. X. Zheng-Johansson, "**Symmetry groups of IED particle**", in preparation, 2011, 2013-.
- [12] Zheng-Johansson J X, "**Weak processes in terms of IED particle model**", in preparation, 2012, 2013.
- [13] Zheng-Johansson J X, "**Electromagnetic model of neutrino**", have scheme (extended work of paper [12 ]), 2012, 2013-.
- [14] Zheng-Johansson J X, "**Strong force of IED particles: Unification of strong and electromagnetic forces**", have scheme, 2000-2013-.
- [15] Zheng-Johansson J X, **other topics**. in preparations, 2013-.

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J. X. Zheng-Johansson

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- [1 ] Zheng-Johansson J X, "**A Theory of Gravity and General Relativity based on Quantum Electromagnetism**", 2017. XXIV Int Conf Integrable Systems and Quantum Symmetries (ISQS-25) Prague, 2017 ed;.
- [1 ] Zheng-Johansson J X, "**A Microscopic Theory of the Muon and Muon-emitting Particles**", 2016. in draft;.
- [1 ] Zheng-Johansson J X, "**A Microscopic Theory of the Neutron**", *J Phys Conf Ser* **670** 012056, 2016. XXIII Int Conf Integrable Systems and Quantum Symmetries (ISQS-23) Prague, 2016 ed C. Burdik; arxiv:1111.3123.
- [2 ] Zheng-Johansson J X, "**Continuos Emission of a Radiation Quantum** ", *J Phys Conf Ser* **474** 012035, 2013; XXI Int Conf Integrable Systems and Quantum Symmetries (ISQS-21) Prague, 2013 ed C. Burdik; arxiv:1312.0918.
- [3 ] Zheng-Johansson J X, "**Inference of the Universal Constancy of Planck Constant based on First Principles**", arxiv:1302.2572.
- [4 ] Zheng-Johansson J X, "**Vacuum Potentials for the Two Only Permanent Free Particles, Proton and Electron. Pair Productions**", *J. Phys.: Conf. Series* **343** 012135, *Proc. 7th Int Symp Quantum Theory & Symm.* (Prog, Aug., 2011) ed. C. Burdik; arxiv:1111.3123.
- [5 ] Zheng-Johansson J X, "**Quantum-Mechanical Probability of IED Particle(s)**", talk at *28th Int Colloq Group Theory in Math Phys*, 2010; arxiv:1011.1344.
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- [9 ] J. X. Zheng-Johansson, "**Doebner-Goldin Nonlinear Schrödinger Equation for Electrodynamic Particle. The Implied Applications**," (invited) talk at the *Seventh International Conference on Symmetry in Nonlinear Mathematical Physics* (Institute of Mathematics, Kiev, <http://www.imath.kiev.ua/~appmath/>, 2007); (submitted for publication, 2009);

arXiv:physics/0801.4279

[10] J. X. Zheng-Johansson, "**Inference of Schrödinger Equation from Classical-Mechanics Solution**" (invited contribution at) *Quantum Theory and Symmetries IV*, **2**, ed V.K. Dobrev (Heron Press, Bulgaria, 2007); *Supplement to the Bulgarian Journal of Physics* **33**, 763-770 (2006); arXiv:physics/0411113, with P-I. Johansson.

[11] J. X. Zheng-Johansson, "**Depolarization Radiation Force in a Dielectric Medium. Its Analogy with Gravity**" (invited contribution at) *Quantum Theory and Symmetries IV*, ed V.K. Dobrev (Heron Press, Bulgaria, 2006); *Supplement to the Bulgarian Journal of Physics* **33**, 771-780 (2006), with P-I. Johansson, R Lundin; J. X. Zheng-Johansson, "**Prediction of Universal Gravity between Charges in a Dielectric Medium**," arXiv:physics/0411245v4, with P-I. Johansson.

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[**Contents:** Preface;

*Chapters:*

(*Part I. Introduction:*)

1. Basic Concepts and Definitions. Existing Representations;

2. Unsolved Problems. Resolutions through the Unification;

(*Part II. The Theory Of Vacuum:*)

3. The Observed Substantial Vacuum;

4. Statics and Dynamics of Bound Vaculeons;

5. Vacuum Dynamics I: Interaction Forces;

6. Vacuum Dynamics II: Equation of Motion;

(*Part III. The Theory Of Material Particle Formation:*)

7. Formation of Basic Material Particles;

8. Developments of de Broglie Waves;

9. Particle Wave Dynamics at Unclassic Velocities;

*Appendices:*

A. Spin Dynamics of Bound Vaculeons;

B. Vacuum Dielectrics;

- C. Vaculeon Vacuum Interaction;
- D. Inference of Hookes Law;
- E. Point Charge Radiation;
- F. Energy Momentum Relation of Electromagnetic Wavetrain;
- G. Supplement to SSME;
- H. Electrodynamics Related;
- I. Related Integration Results; Important Symbols; Index.]

[17] J. X. Zheng-Johansson, 234 pages, *Inference of Basic Laws of Classical, Quantum and Relativistic Mechanics based on First-Principles* (revised title) (The Nova Science Publishers, Inc., New York, 2005) ISBN 1-59454-261-9.

[**Contents:**

Preface; (*Parts*):

*Chapters:*

(*I. Formal Unification Of Classical And Quantum Mechanics*):

1. Inference of Schrödinger Equation from Newtonian Mechanics;

(*II. A Unification Of Gravitational And Electromagnetic Forces*):

2. The Microscopic Theory of Gravity;

3. Interaction of Electromagnetic Fields with Matter;

(*III The Theory Of Relative Motion*):

4. Galilean Transformation (Review);

5. The Observational Electromagnetic Waves;

6. Length-Time Contraction due to Second Kind Source Motion Effect;

7. Galilean-Lorentz Transformation, GLT;

8. Predictions of Observational Effects based on GLT;

9. Transformation of Newtons Laws of Motion;

(*IV Deceleration Radiation*):

10. Mechanism for Deceleration Radiation;

Appendices:

A. Mechanics of Radiation Electromagnetic Fields;

B. Dynamic Spacing;

C. Particle Size Thermal Contraction;

D. Propositions 1-5 (Predictions) from Book 1; Index.]

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[Chapters:

1. Introduction;
2. Microscopic Construction of He II Based on Experiments;
3. Fractions of the Two Fluids of He II;
4. Equations of Motion of Superfluid Atoms; Solutions and Predictions;
5. Neutron Scattering by the Superfluid;
- 6.1 Fluid Dynamics;
- 6.2. Microscopic theory of circulation quantization;
7. The Superfluidity Mechanism;
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- 8.2 The superfluid phase transition. Prediction of  $T_\lambda$ ;
9. QCE-Resultant Cooper Pairs. Superconductivity Mechanism ]

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