

# 挑战爱因斯坦相对论的一个有根本性创新的物理基础理论终于发表了

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春天是一个充满希望的季节。多年以前的一个春天，作为一个小学生，当我第一次从老师那里听到牛顿和苹果树的故事时，我很着迷牛顿对苹果总是垂直降落到地面的现象和原因的好奇和刨根问底。我尤其着迷为何观察到苹果垂直降落能启发牛顿发现万有引力，我非常想知道万有引力的起因。牛顿的名言也给我留下了同样深刻的印象：“我就像一个在海边玩耍的小男孩，在不停探寻，然后找到一块较比平常更光滑的鹅卵石或更漂亮的贝壳，而在我面前的是未被探索的真理海洋。”还有“如果说我看得比别人更远些，那是因为我站在巨人的肩膀上”。

物理学顺理成章成为我大学本科的选择。虽然还是一名本科生，我应用刚刚学到的量子力学的一些基本定理和一些见于文献的实验发现，写了关于超导机制的第一篇文章。我提出的超导机制是费米面附近自由电子 ( $-e \rightarrow$ ) 和空穴 ( $+e \leftarrow$ ) 反向有序耦合运动导致超导电性。只有当费米面附近自由电子和空穴之间的能隙足够稳定并足够低，以至于达到一个和材料有关的临界值时，自由电子和空穴的反向有序耦合运动才有可能发生。并且周围环境的能量量子的能量需不高到足以破坏这个稳定有序耦合运动，超导电性才能保持。这也解释了超导临界能隙和临界温度的关系。我的几位大学老师就这篇文章给我很多鼓励。这篇文章用中文写成并附有一个简短的英文摘要；我尝试将它投给数个中文物理期刊，但都被拒稿了。

我在农村长大。在中国，那时农村一般比城市贫穷许多，其原因是广为人知的实施较长时间的“价格剪刀差”以支持工业化发展。当时对一个农村的家庭来说 供给一个大学生在大都市生活是比较艰难的。我在学习之余找机会勤工俭学以减轻家里的负担，并决定在毕业后立即工作，在财务上可以支持家里。我的老师推荐我去北京做核能技术研究，既能做研究工作，工资以外还有放射性津贴。从那时起，我一直在核能领域工作，2000年获英国大学奖学金出国留学，随后在英工作。我从北京移民到了英国 — 牛顿的祖国。

大约六年前，作为一个材料高级工程师，我热衷于通过分析谐振子（弹簧）模型来更好地理解材料疲劳行为，并取得了一定进展。在对弹簧的行为作了较长时间的深入思考后，我突然意识到，现代物理学的基础理论中存在几个基于理想近似和人为假设而导致的不完美。从此我把我周末和假期的大部分时间都用在了物理基础理论的研究上，希望能有机会推进物理基础理论的发展并实现年少时的梦想。对于基于灵感和勤奋所取得的进步，我感到非常幸运和高兴。在2018年初，我写了第一篇关于普朗克常数起源的文章[1]和第二篇关于哈勃常数起源的文章[2]。2019年初，我写了有关万有引力起源的文章[3]，并定量推导出了更广义的万有引力定律，塔利-费舍尔关系以及修正牛顿动力学关系和加速度[3, 4]。我的文章源于分析弹簧的特性和行为，都有原创性。在2020年圣诞假期期间，我从理论上验证了光子在有摩擦力的真空中以光速传播的能力[5]，并精确计算出了宇宙微波背景辐射的温度和光谱。作为在抗疫期间的休假员工，非常感恩有两个多月的整块时间，经过大量文献调研和严格的数理推导，我提出了挑战爱因斯坦相对论和宇宙大爆炸宇宙论的一个综合理论，并找到确凿的支持性证据。更重要的是，一个具有简洁明确的物理数学框架的新方向被发现[6-8]。沿着这个方向探索，将有可能获得许多令人振奋的新研究成果。尽管我的理论仍处于起步阶段，但它可以透过深入探索光子，中微子，宇宙射线和各种粒子在超光子海洋中的相互作用，发挥其巨大的潜力从而解释困扰物理世界多年的许多物理现象。它也将有助于理解核素

合成的机理以及基本粒子和元素的稳定性，预测宇宙中元素的相对丰度。它同样可能会有益于核聚变技术和启发其他创新技术的设计和研发。

我将自己的文章先后提交给了三十多个主流期刊，但是，我的文章一次又一次被拒绝。主要原因是它与爱因斯坦的相对论和宇宙大爆炸理论相冲突。爱因斯坦的相对论和宇宙大爆炸理论是基于理想近似和人为假设的理论。世界上没有完美的理论。如果每个人都被爱因斯坦的理论所束缚，那么物理学的基础理论又如何向前发展呢？我在 Research Gate 和科学网上发表了我的文章和想法，吸引了成千上万的读者，并收到了很多回馈鼓励。一些对大爆炸宇宙学占据绝对主导地位不满的天文学家和物理学家开始逐渐认可我的工作。非常感恩，今年年初物理基础理论根本性创新的两篇文章通过同行审评正式发表了，其他两篇也已通过评审即将于今年十月发表，点击下方链接可免费下载阅读，因为是基础物理理论的根本性新，在此基础上可以发展出广泛大量的理论和应用创新，希望您也能从中受益。

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我希望能有幸遇到有远见卓识的组织机构和朋友，能认同，支持或声援我的研究。我也希望我所取得的进展可以激发更多的朋友加入，并一起获得令人振奋的新成果。物理学的新纪元即将到来。物理学新纪元的春天已经来临，这体现在发现弹簧振动规律和我们神秘的宇宙运行规律之间的惊人联系以及对现代理论物理学主流的强有力的挑战，并逐步发展出新的更加完善的理论框架[1-8]以改进爱因斯坦相对论及现代基础物理理论的不足。有一个宽敞明亮的窗户已打开，可以为物理学和科学的新的研究方向和前沿提供广阔的机会，随后而来的，可能是基础理论突破在创新技术和工程上的广泛应用。

## A Radical New Foundation Theory of Physics to Challenge Einstein' s Theories of Relativity Has Been Published

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One spring many years ago, as a primary school student, I was fascinated by the story of Newton' s apple when I first heard it. I was amazed by Newton' s inquisitiveness as to why the apple should always descend perpendicularly to the ground. Moreover, I was curious about the way in which the falling of the apple had led Newton to the great discovery of the Universal Gravity. Meanwhile, I was equally impressed by Newton' s famous sayings: "I seem to have been only like a

boy playing on the sea-shore and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.” , and “If I have seen further it is by standing on the shoulders of Giants” .

It was no surprise, then, physics became the subject of my choice for undergraduate study. Whilst still an undergraduate, I wrote my first article on the mechanism of superconductivity, using some of the basic laws of quantum mechanics and some relations based on published experimental findings. I believe that the orderly coupling movement of the pairs of free electrons ( $-e \rightarrow$ ) and holes ( $+e \leftarrow$ ) near the Fermi level causes the superconductivity. Superconductivity can only happen when the energy gap between the free electrons and the holes is low enough, thus reaching a critical value to enable the coupling movement in opposite directions to happen. The energy quanta from the surroundings should be low enough hence not to break the orderly coupling movement. The relationship between the critical value of the energy gap and the critical temperature of the superconductivity is explained quantitatively. Encouraged by several of my university teachers and I had tried to submit the article to a dozen of journals, but all of them rejected it.

I grew up in the countryside in China. The countryside is used to be much poorer than the city, the reason being known as “price scissors” , and a once long-held policy to support the industrialization. It was tough for a family in the countryside to support a university student living in a large city. I tried to work outside lecture time to support myself and decided to find a job immediately after graduation. My teachers recommended that I go to Beijing to do research on nuclear technologies, so I could earn not only a salary but also a radioactive allowance, then I would be able to support my family in financial difficulty. Since then I have remained in the nuclear sector, although I moved from Beijing to the UK—Isaac Newton’ s Country, first studying under a University Scholarship then working.

In 2016, I was keen to develop a better understanding of the behaviour of fatigue of materials through analysing a simple harmonic oscillator (a spring) model as a senior engineer of materials, some progress had been made. Whilst I contemplated the behaviour of springs, I suddenly realized that there are some imperfections of ideal approximations and ad hoc assumptions inside the foundation theories of physics. Since then, I have devoted most of my weekends and holidays, in the hope of advancing the foundation theories of physics and realizing my childhood dream. I am very grateful and excited about the progress. In the beginning of 2018, I wrote my first article about the origin of the Planck constant [1] and a second article about the origin of the Hubble constant [2]. Early in 2019, I wrote my third article about the origin of the Universal Gravity, furthermore, the

generalised Law of the Universal Gravity, Tully–Fisher relation and the Modified Newtonian Dynamics relation and acceleration were derived quantitatively [3, 4]. All my articles stemmed from the analysing of the behaviours and properties of the spring models with original thinking.

During the Christmas holiday of 2020, the capability of a photon travelling at the speed of light in space with friction has been theoretically verified [5], the temperature and the spectrum of the Cosmic Microwave Background Radiation are calculated accurately. As a furloughed employee during the lockdown, I am grateful that after hard working over two months, an integrated theory of the Super photon theory is developed quantitatively together with the pioneered application of the fluctuation–dissipation theorem, and concrete pieces of supportive evidence are found through a thorough literature survey. A radical new direction with clearly defined physics theorems and simple frames of mathematics is discovered for further advancement of the foundation theory of physics [6–8]. If following this direction, more people will be able to make further exciting achievements. Although my theory is still in the stage of infancy, it has a huge potential to be further developed to explain physical phenomena that have plagued the physical world for many years through further advancing the understanding of the interacting and recirculating of photons, neutrinos, cosmic rays and all sorts of particles immersed in the ocean of photons quantitatively. It will also be able to help in understanding the mechanism of the nucleosynthesis and the stability of fundamental particles and elements, predicting the relative abundance of the elements in the Universe [7, 8]. It may eventually benefit the design and development of nuclear fusion technology and other innovative technologies for clean energy, advanced communication and remote monitoring.

I have attempted to submit my articles in different titles and combinations of contents to over thirty mainstream journals; however, my articles were rejected repeatedly. The main reason is that it conflicts with Einstein's theories of relativity and the standard model of the Cosmology of Big Bang. Einstein's theories of relativity and the Cosmology of Big Bang are theories based on ideal approximations and ad hoc assumptions, and there is no perfect theory. If everyone is confined by Einstein's concepts, how could the foundation theory of physics be advanced? I posted my articles on Research Gate and science net, which have attracted nearly ten thousand of readers and a lot of kind encouragement. Several astronomers and physicists who are brave to against the Cosmology of Big Bang as the dominated mainstream foundation theories of physics have started to endorse my work. I am grateful that after six years hard-working of independent research, two of my papers passed review and were published in June with open access, further two of my papers are accepted to be published in October 2021. A radical new foundation theory of physics has been successfully developed from simple spring

models. Please read my recent progresses by clicking the following links and have your say, your advice is warmly welcomed:

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I am hopeful that certain organizations and friends with great insights will recognize the value of my work, and if you do, please offer your kind help and support. I hope that the progresses I have made may become widely known and may inspire more friends to join and make further exciting advancements together. A new era of physics is coming. I believe that the spring of the new era of physics has already emerged. This has been manifested from the discovery of the amazing links between oscillating springs and our mysterious Universe and the pioneered application of the fluctuation-dissipation theorem. A strong challenge towards the mainstream of modern theoretical physics to develop a new paradigm for overcoming the limitations of Einstein's theories of relativity and modern theoretical physics. There is a wide and bright window, which is open for vast opportunities of new research directions and frontiers in physics and science, and in turn, many opportunities for applications in technology and engineering are likely to follow.

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