

## A Study and Brief Investigation on Invisibility Of Aircrafts (Vimanas)

A.Hemant Kumar Yadav<sup>1</sup>, V.V.S.Nikhil Bharadwaj<sup>2</sup>, Kalyan Dagamoori<sup>3</sup>, V. N. Sai Kiran Aka<sup>4</sup>, Yasarapudi Sharon Ruth<sup>5</sup>, Aishwarya Ramesh<sup>6</sup>, Pikkalkar Praveen Kumar<sup>7</sup>, A.Kavitha Sree<sup>8</sup>, Jay R Gaglani<sup>9</sup>, K.Shiva Shashank<sup>10</sup>

<sup>1</sup>Technical Assistant, Department Of Air frame and Structure, Indian Institute Of Aerospace Technology and Management (IIASTM), Kompally , Secunderabad. INDIA.

<sup>2,4,5,6,7,8,9,10</sup> Student , Department Of Aeronautical Engineering , MLR Institute Of Technology , Dundigal Hyderabad. INDIA.

<sup>3</sup> Student, Department Of Aeronautical Engineering , MLR Institute Of Technology and Management , Dundigal , Hyderabad. INDIA.

### Abstract

Making aircrafts invisible to human eye would be a great advantage in defence and military use. The Vedas show us evidence that the ancient ancestors have advanced technology to make a vimana invisible. They had great knowledge on the sun rays, and energies extraction which can create the invisibility for the vimana. The paper describes the various writings and investigation on the topics, comparing with the modern findings of solar rays usage which lead to the better understanding of Ancient advanced vimanas and provide a path to the findings of invisibility.

**Keywords:** *Invisibility Of Vimanas , Solar Radiation , Wave Signal .*

### I. Introduction

#### Ancient writings on invisibility of Vimana Vimanika shasthra Secrets on Invisibility of Vimana

Among 32 secrets of the working of the Vimaana, the Important Secrets which refer to invisibility of Vimana:

- 5th Pilot secret "Goodha" says: "As explained in 'Vaayutatva-Prakarana', by harnessing the powers, Yaasaa, Viyaasaa, Prayaasaa in the 8th atmospheric layer covering the earth, to attract the dark content of the solar ray, and use it to hide the Vimaana from the enemy." It indicates that Dark content of the solar ray, Dark energy, and Dark Matter is used to make the Vimana Invisible. In the book "Vayu tatwa Prakarana" it is given how to harness these energies. This energies will attract the dark energy present in the sun light. The sun light contains 12 different types of energies and dark energy is one out of that.
- The 7th Pilot secret, Adrishya says, "According to "Shaktitantra", by means of the Vynarathya Vikarana and other powers in the heart centre of the solar mass, attract the force of the ethereal flow in the sky, and mingle it with the balaahaavikarana shakti in the aerial globe, producing thereby a white cover, which will make the Vimana invisible." This secret

describes about the Powers of sun, which makes the vimana invisible.

### II. Brief Explanation

#### A. The Holy Vedas- Sun and Solar Radiation

What is the sun? The Aditya—the indestructible source of energy Such is the sun, the Aditya, which the ancient vedic texts investigate together with the solar composition, its hydrogen, approximating the Apah (AM ) of the ancient vedic science. The sun contains Vayu, Apa, and Agni, which is its primary content. This Vayu, Apa and Agni matter is responsible for the sun. The Shatapatha Brahmana refers to it as containing electricity. This substance, as its name implies, generates the prismatic colours that we know as VIBGYOR. The Shatapatha Brahmana confirms this. The Prmapati said "rays" and with this word, were the rays created in the sun, which is collection of beams.

Certainly, the sun is the densest seat of the heavenly Apah. The core of the sun is filled with its vital strength for heat and light. The Aitareya Brahmana confirms it. The sun is virtually Apah and Apah is the sun. There is no distinction between the two Says Shatapatha Brahmans in X, 6, 5, 2. This original stage was one of great instability. Worlds oscillated forward and backward till they were stabilized by the action of the boundaries and by Vayu Stabilization of the Worlds Rigveda II, 12, 2 clearly speaks of this condition. "He who fixed fast

and firm the earth that staggered and set at rest the agitated mountains Who measured out of the air's wide middle region and gave the heaven support, He men, is Indra" This is a graphic description of staggering instability in the world's earliest stages and how it was eventually ordered by Indra, electromagnetic waves, in its later stages.

We find the same thought again in Rigveda X, 149, I "Savita fixed the earth with bands to bind it, and made heaven steadfast where no prop supported" And this is emphasized in Rigveda VII, 99, 3: Both these worlds, Visnu hast thou stayed asunder and firmly fixed the earth with pegs around it.

Again we have the following texts to support the above view: In the process of stabilization, these worlds arranged themselves from below upwards and on the other side, from above downwards. This is what Tandya Brahman VII, 10, 5 holds.

#### **B. The Atomic Nuclei of Contemporary Physics**

"All light, no matter whether from space, from an electric bulb, or from a glow worm, is emitted by atoms or, by the even smaller electrons"

And "even cosmic radiation which rains down on us from outer space with the velocity of light (1,86,000 miles per second) appears to have a similar composition of atomic nuclei." These atomic nuclei, in vedic terminology, are the sun, the moon, the maruts, vayu, nakshatras etc—all these have the atomic nuclei which radiate light, and it is only on account of the balance of radiation that the solar atmosphere is stable.

These atomic nuclei are responsible for several physical processes on the sun "Electrons and protons fly about freely and when they rise up to the solar surface where the temperature is much lower, they are recaptured by the protons there. During this process, heat is liberated just as it is during the condensation of water in air. This gives rise to granular convection currents with a constantly changing field of contiguous whirlwinds. The wind velocities here are well over a thousand miles per hour, while in our own atmosphere, even during the worst hurricanes, they rarely exceed 200 miles an hour"

These atomic nuclei constitute the moon, also the maruts and the vatas that pervade the atmosphere. Of

all these radiations, those of the sun are the brightest and the purest Yajurveda II, 26 confirms this.

#### **C. The Heat Wave Nuclei**

The heat-wave nuclei are the "Dharmasarjana" rays and they are 300 in number. Nirukta XIV, 85, commenting on this, translates the word as solar rays. This type of solar rays give nourishment to the whole universe, just as the cow gives nourishment to all that exists on earth. As Shatapatha Brahman III, 9, 2, 14 affirms: The entire heat of the sun is due to this group of rays of variegated colour .

#### **D. Seven Principal Rays of the Sun**

There are seven principal rays of the sun which are the most excellent of the 1000 rays of the sun. Of these rays are born all the planets.

They are

- (1) "Mupumna"
- (2) "Harikesa"
- (3) "Vishvakarma"
- (4) "Vishvashrava"
- (5) "Sapadvasu"
- (6) "Travavisu"
- (7) "Swaratra"

#### **E. Other Important Rays of the Sun**

Apart from the seven primary solar rays, there are other Important and effective solar rays each with its own particular colour and intensity as mentioned in the vedic literature. To omit a passing reference to them in this treatise would be to leave incomplete the vedic literature on the sun. Those whose electro-magnetic field is directed northward and those directed southward. The distinction lies in the direction of their field. A text of the Aitareya Brahman which describes them as snake-like. It is interesting to note in this connection a text of the Yajurveda (XIII, 8), in which the snake-like field of such rays is mentioned The text runs thus (We bow to those vital rays of the sun, in the form of snakes, ..)

A reference to this group of solar rays which move in a magnetic field of the form of snake, is found in the Rigvedic text. On this, Yaskacharya comments about these solar rays, that the colour of these rays is blue.

### III. In Hindu Scripture



Figure : 1 The seven-armed Agni with his wife.

Agni is a Hindu and Vedic deity depicted in three forms: fire, lightning and the sun. In Hindu art, Agni is depicted with two or seven hands, two heads, and three legs. In each head, he has seven fiery tongues with which he licks sacrificial butter. He rides a ram or a chariot harnessed by fiery horses. His attributes are an axe, a torch, prayer beads and a flaming spear. Agni is represented as red and two-faced, suggesting both his destructive and his beneficent qualities, and with black eyes and hair. Seven rays of light emanate from his body.

The Vishnu Purana, a post-vedic scripture, describes how Vishnu "enters into the seven solar rays which dilate into seven suns." These are the "seven principal solar rays," the source of heat even to the planet Jupiter, and the "seven suns into which the seven solar rays dilate at the consummation of all things..."

20th century Hindu scholar, poet and mystic, Sri Aurobindo, described the Vedic seven rays of knowledge, or Agni, as "the seven forms of the Thought-principle" and wrote that "the seven brilliant horses of the sun and their full union constitutes the seven-headed Thought of Ayasya by which the lost sun of Truth is recovered. That thought is again established in the seven rivers, the seven principles of being divine and human, the totality of which founds the perfect spiritual existence."

### IV. Modern Day Discoveries Revealing Use Of Sun Rays

#### A. Using Plasma to Manipulate Light

The polarization of an intense laser beam can theoretically be controlled by mixing it with a second beam in a plasma.

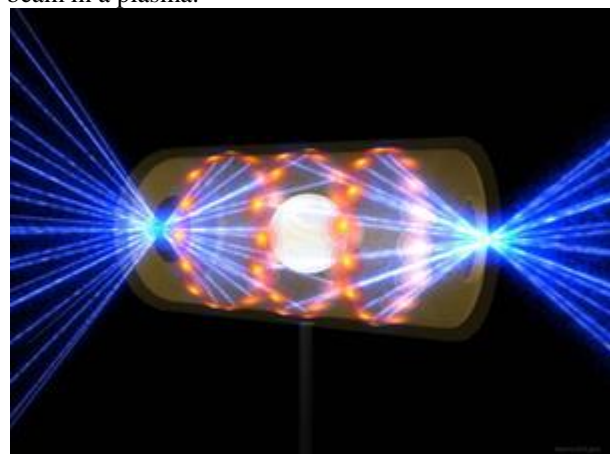


Figure :2

**Fusion in a flash.** At the National Ignition Facility (NIF) at Lawrence Livermore National Lab, 192 powerful lasers blast a BB-sized fuel pellet inside a metallic cylinder to generate nuclear fusion.

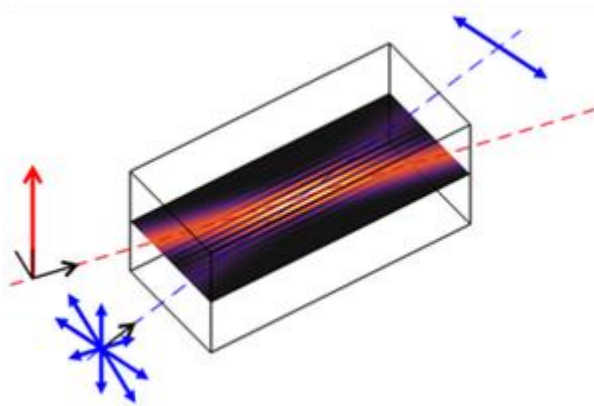


Figure : 3

### B. Crossing the beams.

A powerful laser beam (blue) can theoretically be polarized by sending it through a plasma where it interacts with a second, more powerful beam (red). Researchers could use this arrangement to manipulate the polarization in other ways, as well.

The polarization of an intense laser beam can theoretically be controlled by mixing it with a second beam in a plasma.

Manipulating the polarization of light—the direction of its electric field—is critical in many optical experiments, but advanced lasers are so powerful that they would destroy ordinary polarizing devices. Researchers now show theoretically that a beam's polarization can be changed by combining it with another beam inside a plasma. A powerful laser would damage ordinary optical equipment by ripping electrons out of the atoms, but plasma is “already broken” in this way and isn't further damaged by intense beams, like those used in the quest for fusion energy.

Researchers at the National Ignition Facility at Lawrence Livermore National Laboratory in California are trying to generate fusion by compressing a fuel pellet with pulses from enormous lasers. For several years they have controlled these beams in part with laser-induced structures in plasma that act as high-power mirrors. For additional control, Pierre Michel and his colleagues at Livermore wanted to manipulate the polarization of these intense beams. He says that polarization control might also be useful for the new generation of compact electron accelerators that are currently in development, since they also involve laser generated plasma.

The researchers used theory to study what happens to a “probe” beam in a plasma when it overlaps with a strong “pump” beam traveling in nearly the same direction within a horizontal plane. The field of either beam alone constantly pushes and pulls the plasma's electrons and ions, but because it is continually and rapidly reversing direction, there is no average force. When both beams are present, however, they interfere in the side-to-side

(transverse) direction and create nodes and antinodes—fixed regions of maximum and minimum electric field strength. The periodic spatial variation of the electric field induces a persistent variation of the plasma density. The probe beam helps to create this density variation, but at the same time, the beam's properties are affected by it.

The team describes two ways to use the density waves to modify the probe beam's polarization. In the first scheme, the pump frequency is chosen so that the combined light wave excites a natural wave in the plasma, similar to a sound wave. The analysis predicts that as the probe beam moves through this plasma density wave in the presence of the pump beam, photons from the probe will convert to match the pump, in both frequency and direction, leaving a weakened probe beam behind. But this conversion only works if the probe and pump polarizations are parallel. Any probe light with perpendicular polarization passes through unchanged, so the plasma structure acts like a traditional polarizing filter.

In the second scheme, the pump and probe are chosen to have the same frequency. The resulting static plasma density variation turns out to slow down vertically polarized probe light compared with horizontally polarized probe light. This polarization-dependent speed can be used to rotate the polarization angle or to interchange light that is linearly polarized (fixed polarization direction) with light that is circularly polarized (rotating polarization). Less powerful beams are routinely altered in this way using devices called wave plates, which are made from anisotropic crystals.

The new theoretical ideas are expected to be tested experimentally early next year, Michel says. The “top-notch” Livermore team is well positioned to evaluate the new devices, says Dustin Froula of the University of Rochester in New York State. “It's certainly not easy.” He adds that, with the growing understanding of laser-plasma interactions in recent years, “we can begin to engineer their effects into our science applications.”

### V. Nano Paint Captures Concentrated Solar Rays

Researchers announced the development of a nano-particle paint that could increase the efficiency of solar concentrating plants by about a third.

The paint – developed by a team at the University of California, San Diego, with funding from the Energy Department's SunShot program – uses a range of particles from 10 nanometers to 10 micrometers to trap 90 percent of the concentrated sunlight that strikes it, the team reported.

“We wanted to create a material that absorbs sunlight that doesn't let any of it escape,” said Sungho Jin, a professor in the department of Mechanical and Aerospace Engineering at the

university's Jacobs School of Engineering. "We want the black hole of sunlight."

Operators want to run concentrating solar plants at 750 degrees Celsius, up 36 percent, Jin told the San Diego Union-Tribune. Their paint withstands the higher temperatures and can increase efficiency by 30 percent, he said.

In addition to higher efficiency, the team designed the substance to last longer than current commercial material to limit downtime for reapplication.

The 377-megawatt Ivanpah plant in Nevada, the world's largest solar thermal power plant, began commercial operation last year. Two more concentrating solar plants are expected to come online this year.

## VI. New Light Shed On Dark Photons

Particle physics is in a very interesting phase where major discoveries are hotly anticipated. But predicting where or when breakthroughs will occur is highly speculative.

We have the extremely successful standard model as the guiding theoretical description of fundamental particle physics, which encompasses the known basic constituents of matter and their interactions (except gravity). With the recent discovery of the Higgs boson and the inclusion of neutrino mass, the standard model is in splendid agreement with all confirmed measurements.

However, it is also clear that particle physics is playing the game with much less than a full deck of "cards" because of the apparent existence of dark matter and dark energy, which, respectively, constitute 25% and 70% of the Universe's energy budget, based on information from astrophysical and cosmological observations. The standard model only covers the remaining 5% that consists of ordinary matter.

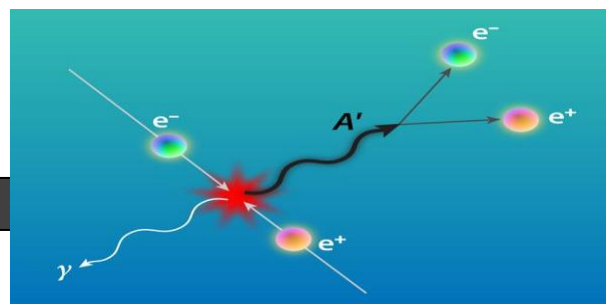
Several attempts have been made to extend the standard model, particularly into the realm of dark matter. Beyond its gravitational interactions, very little is known about dark matter except that it appears to be slow moving (or "cold"). It is speculated that within dark matter there might be a family of particles and forces—a so-called "dark sector"—that has thus far escaped detection.

In analogy with electromagnetism, for which the massless photon is the force carrier between charged particles, there could be a dark electromagnetism with a possibly massive dark photon that transmits the forces between dark particles. The BaBar collaboration at the SLAC National Accelerator Laboratory in California are now reporting on their search for evidence of this dark photon. The researchers did not detect a dark photon signature in their electron-positron collision data, allowing them to place new stricter limits on dark sector models,

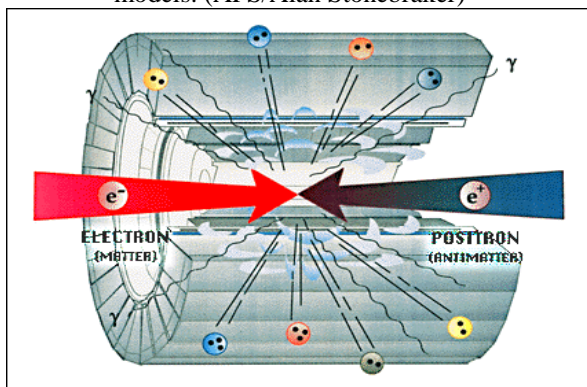
including ones trying to explain a possible discrepancy between the measured and predicted value of the anomalous magnetic moment of the muon.

The dark photon search is but one of many approaches for trying to detect dark matter. At the Large Hadron Collider, high-energy reactions are being probed for signs of new massive particles and interactions. Smaller dedicated efforts, such as the SuperCDMS and LUX experiments, are also seeking direct evidence for the presence of dark matter through its possible interactions with ordinary matter. Other experiments study processes that are rare or forbidden in the standard model, seeking to reveal small deviations from expectations that would indirectly indicate the existence of new physics effects. So far, these experiments have allowed physicists to place limits on various hypotheses involving the masses and interaction strengths of dark matter particles.

The dark photon (which, appropriately for such a mysterious entity, has many aliases like hidden photon, heavy photon, and  $A^1$ ) may couple to standard model particles, such as quarks and charged leptons. In addition, it may be as light as several MeV/c, so there could be numerous possible ways to produce and observe it—assuming it doesn't decay principally into other invisible lighter dark particles [1]. One method involves sending a high-intensity beam of electrons or protons into a massive beam dump from which only weakly interacting particles created in the collisions are able to escape. A dark photon could be one of these emerging survivors, and it might identify itself through subsequent decay into standard model particles such as an electron and a positron ( $A^1 \rightarrow e^+e^-$ ). Even if the dark photon decay products are other dark sector particles, these could emerge from the dumps and have observable interactions in detectors [6]. Dark photons could also be produced in meson decays (e.g.,  $\pi^0 \rightarrow \gamma A^1$  and  $\phi \rightarrow \eta A^1$ ), in fixed-target scattering reactions ( $e^- + \text{Nucleus} \rightarrow A^0 + \dots$ ) or in electron-positron colliding beam experiments (e.g.,  $e^+e^- \rightarrow \gamma A^1$ ) [1]. The dark photons could be detected via their decay products, or—in certain cases—their presence could be inferred from events with missing mass.



**Figure : 4** - Researchers have studied electron-positron ( $e^+e^-$ ) collisions for interactions that produce a normal photon  $\gamma$  and a dark photon  $A^1$  that interacts with ordinary matter particles. The dark photon can potentially decay into an  $e^+e^-$  pair (shown here) or a  $\mu^+\mu^-$  pair (not shown). However, the latest results from the BaBar collaboration offer no sign of dark photons, thus placing new limits on these types of models. (APS/Alan Stonebraker)



**Figure : 5**

For its part, the BaBar collaboration has looked for interactions of hypothetical dark photons with ordinary matter using electron-positron collision data [3]. BaBar extended its previous studies [7] to higher sensitivity and a wider range of masses by using a larger set of data taken at the asymmetric  $e^+e^-$  collider center-of-mass energy corresponding to the  $U(4S)$  resonance (approximately 10.6 GeV) and other energies. In particular, the researchers searched for events where an electron-positron collision produced a dark photon and a normal photon, followed by the dark photon decaying into either an electron-positron pair or a muon-antimuon pair (see Fig 4). The data analysis covered the  $A^1$  mass range between 0.2 and 10.2  $\text{GeV}/c^2$ . The presence of the dark photon would be indicated by the appearance of an unexpected peak in the total mass of its decay products above smooth backgrounds. Dark photons may be expected to decay in these ways if there are no lighter dark matter particles, but the researchers discovered no evidence for peaks in the energy range studied. From this nondetection, they set new upper limits on the strength of the mixing of dark photons with standard model particles, representing improvements by about an order of magnitude over previous studies that also looked for dark photon decays into electrons/muons. Null results like these, while not ruling out the existence of dark photons, serve as important constraints on the development of novel theories, which might extend the standard model. A case in

point is the anomalous magnetic moment of the muon. Standard model predictions for the muon moment include corrections due to electromagnetic, weak, and strong interactions. If a dark photon existed, and its mass and mixing strength were within a certain range of values, then it could contribute additional corrections. Theorists have proposed that a dark photon contribution could explain a possible (but not yet confirmed) discrepancy reported between the expected and measured values for the anomalous magnetic moment of the muon [8–10]. However, the BaBar result nearly rules out the remaining parameter space for the simplest dark sector explanation. Future experiments covering a wide scope of possibilities, such as fixed target experiments planned at Jefferson Laboratory in Virginia, will extend the sensitivity and mass range of the search for dark photons [1] or possibly find evidence for them if they actually exist. Another exciting possibility is that the highly sensitive experiments searching for dark photons could discover some new phenomenon (unrelated to current speculations about dark matter particles) that lead the field in entirely new directions.

## VII. Dusting off the Cosmic-Gravitational-Wave signal

Earlier this year, the BICEP2 collaboration reported possible evidence of primordial gravitational waves from the observed polarization of the cosmic microwave background (CMB). However, several scientists have cast doubts on the findings because cosmic dust in our own galaxy can produce a similar signal. A new analysis shows that dust contamination would result in a directional preference or alignment in the polarization signals. The authors suggest that this anisotropy could be distinguished from the overall isotropy expected from the randomly oriented gravitational waves. Cosmological models predict that spacetime ripples (gravitational waves) are generated by an expansionary phase of the early Universe called inflation. Such waves would have left a detectable marker in the form of swirling patterns (or  $B$  modes) in CMB polarization maps. BICEP2, a microwave telescope at the South Pole, detected B modes, but follow-up studies have suggested that the signal could come from dust emission, rather than gravitational waves. To help settle the issue, Marc Kamionkowski and Ely Kovetz of Johns Hopkins University, Maryland, have devised an algorithm for unmasking the contribution of dust in CMB polarization data. They premise their method on the fact that dust grains are aligned—and therefore emit polarized light—because of the effect of galactic magnetic fields. In a small region of sky, these fields are expected to be fairly uniform, so the resulting polarization should have a preferred orientation. This would lead to a characteristic anisotropy which, when analyzed in terms of  $B$  modes, produces an angularly

dependent pattern (called “hexadecapolar”) that would be a red flag of dust contamination. The authors think this analysis can complement other techniques (such as observing at different frequencies) for isolating a true gravitational wave signal in future surveys.

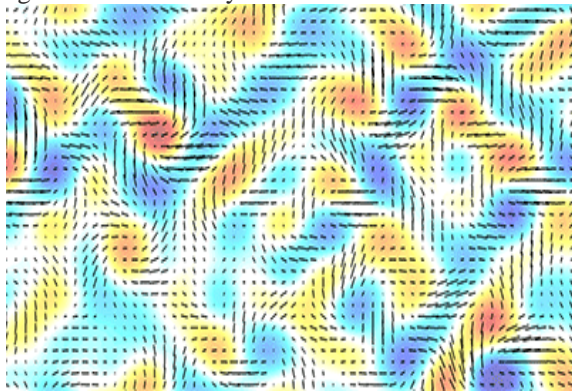


Figure : 6

### VIII. Spinning a Condensate with Light

The collective quantum state called a Bose-Einstein condensate was first created using ultracold atoms, and it has recently been demonstrated using composite particles in specialized semiconductor structures. These semiconductor-based versions form at higher temperatures and could potentially be used for sensitive detectors or novel optoelectronic devices, but they are harder to manipulate directly.

Now an international team led by Elena Ostrovskaya of the Australian National University in Canberra has shown how a patterned light source can modify the internal state of the condensate, specifically by giving it a net rotation. To form a condensate, researchers employ semiconductor microcavities that confine both light and light-generated electron-hole pairs to form combined “exciton-polaritons.” If the light is bright enough to create a high density of these quasiparticles, they can spontaneously form a condensate, even at temperatures approaching room temperature. But the detailed wave information in the light is lost in making the pairs, and thus cannot be used to tailor the condensate’s properties as is done in atomic systems. The new experiments exploited the natural motion of newly generated pairs toward bright regions where other pairs have already condensed. By patterning the illumination in an asymmetrical spiral pattern, the researchers used this quasiparticle flow to impart angular momentum to the entire condensate, which they confirmed by measuring the phase variation of the luminescence it emitted. Among other applications, the circulating condensate might be useful for devices reminiscent of existing SQUID detectors, which use circulating electric currents in superconductors to measure tiny magnetic fields.

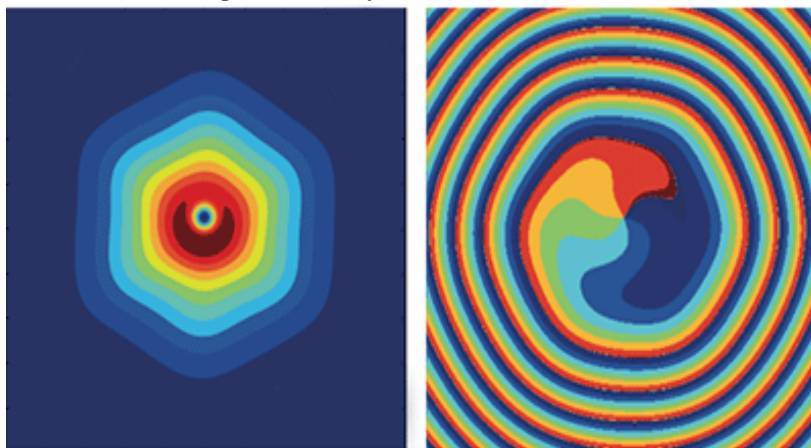


Figure : 7

### IX. Conclusion

Upon considering all the facts and findings done in modern world, there is a clear path laid in front of us, describing that the Ancient writings are not myth anymore, they are not science fiction anymore. So, by further studying on light and types of sun rays, we can extract the power from the sun to make the aircrafts invisible, like the ancient vimanas. A new light has to be shed on the Vayu tatwa Prakarana, which leads to the discovery of energy extraction from the dark matter in solar rays, to make the

aircrafts invisible. By deeper understanding and practical experiments on the book Vayu tatwa Prakarana, many more advanced technology can be Rediscovered and Reinvented, which will change the world in much better way.

### Reference

- a. ”New Light Shed on Dark Photons” by Douglas Bryman University of British Columbia, Vancouver, British Columbia V6T2A3, Canada Published November 10, 2014

- [2] Distinguishing off the Cosmic-Gravitational-Wave signal by **Marc Kamionkowski and Ely D. Kovetz** Published November 6, 2014
- [3] Spinning a Condensate with Light by **Robert Dall, Michael D. Fraser, Anton S. Desyatnikov, Guangyao Li, Sebastian Brodbeck, Martin Kamp, Christian Schneider, Sven Höfling, and Elena A. Ostrovskaya** Published November 12, 2014
- [4] <http://www.sciencedirect.com/science/article/pii/S0370269306009877>
- [5] [http://www.dailygalaxy.com/my\\_weblog/2013/10/search-for-a-massive-photon-may-reveal-dark-matter-and-nix-the-standard-model.html](http://www.dailygalaxy.com/my_weblog/2013/10/search-for-a-massive-photon-may-reveal-dark-matter-and-nix-the-standard-model.html)
- [6] <http://ucsdnews.ucsd.edu/pressrelease/new-solar-power-material-converts-90-percent-of-captured-light-into-heat>
- [7] <http://www.newscientist.com/article/dn26575-dark-matter-could-be-seen-in-gps-time-glitches.html#.VH8CjDGUeuZ>
- [8] <http://blogs.rollcall.com/energy-xtra/nano-paint-captures-concentrated-solar-rays/?dcz>