4 + n -dimensional topoisomerase-like waves

Alireza Sepehri *

Research Institute for Astronomy and Astrophysics of Maragha (RIAAM),
P.O. Box 55134-441, Maragha, Iran.

In this paper, we propose a new model which allows to consider all evolutions of DNA from viewpoint of an observer on 11-dimensional manifold. In this model, DNA is an 4 + n-dimensional object in 11 dimensional space-time which is compacted to 4-dimensional manifold. This leads to the emergence of a curved space-time around DNA and production of some new waves. To exchange information between DNAs, it is needed that waves play the role of topoisomerases in extra dimensions. These topoisomerase-like waves open packings of DNA, read it’s information and compact it again. The shape and properties of these waves are completely different from gravitational and electromagnetic ones. By reducing dimensions from 11 to 4, the topoisomerase-like waves obtain the properties of known fields like gravitons and photons. Type of packings of DNAs in men is different of women. Consequently, to open DNAs, two types of topoisomerase-like waves should be used. These waves interact with water and store information in it. Thus, water could have two types of structures to store these two types of information. These structures are the same in 4-dimensions, however, their differences could be observed in extra dimensions. The structure of waters in extra dimensions, include some types of DNA molecules that by interacting with topoisomerase-like waves, could be extracted. Now, the question arises that how we could store these main waves. We can show that there are some mechanism for storing topoisomerase like waves in nature. For example, trees could store all topoisomerase like waves and then apply them for special aims. If we put new born chicken under some trees, they exchange topoisomerase like waves and trees could act like artificial mother of these chickens. Using the stored topoisomerase-like waves, we could control the growth of cells of fetus of chicken outside the egg and produce chicken before 21 days. Also, we show that if blood cells put near stem cells

* alireza.sepehri@uk.ac.ir, alireza.sepehri2017@gmail.com
of embryo of chicken in a dish, they will exchange topoisomerase-like waves and cells of blood can go back to stem cells.

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I. INTRODUCTION

Until now, various types of waves like the gravitational waves have been introduced and some methods for detecting them have been suggested [1–4]. However, it isn’t clear which type has the main role in communications between DNAs in real 11-dimensional world. Recently, Montagnier and his collaborators have studied the capacity of some bacterial DNA sequences to radiate very low frequency electromagnetic waves in high aqueous dilutions. They have observed that the genomic DNA of most pathogenic bacteria contains sequences which are able to produce such waves [5]. In another research, authors have described the experimental conditions by which electromagnetic signals (EMS) of low frequency can be emitted by diluted aqueous solutions of some bacterial and viral DNAs. Also, they have shown this transduction process in living human cells exposed to EMS irradiation and suggested a quantum field theory analysis of the phenomenon [6]. In other paper, some scientists have built the responses of DNA to electromagnetic fields in different frequency ranges, and considered the properties of DNA molecules as antennas [7]. In another investigation, it has been discussed that the type of packing of DNA in chromosomes of males and females become different. This causes that radiated waves from DNAs of males and females have opposite signs and cancel the effect of each other in a pair. Using property, scientists have proposed a mechanism to cancel the effect of extra signals, which are created by DNAs in cancer cells of men or women, by extra signals which are produced by DNAs in similar cells of women or men and stop the progression of the disease [8]. And in one of more newer researches, A new virus medical imaging technique has been proposed. In this technique, viruses injected or induced interior of human’s body and communicate with viruses out of it. On the other hand, viruses inside the human’s body can communicate with cells, take teir information and send them to viruses out of human’s body [9]. In all of these investigations, it has been assumed that DNA emit or receive the electromagnetic waves. However,
the question arises that how the packed DNA could communicate with other DNAs? During various experiments, we observed that electromagnetic waves couldn’t open packings of DNAs and read their information completely. For this reason, we search for more specialized wave that act like topoisomerases in biology [10–12] and could interact with DNA.

In this paper, we will show that DNA is an object in 11-dimensional space-time which is compacted in 4-dimensional manifold. By packing DNA, a curved space-time is emerged and some new fields like graviton and photons are produced. To read total information which is saved on DNA, it is need to some 4 + n-dimensional waves. These waves have the role of topoisomerases and open packings of DNA, read it’s information and compact it again. Properties of these new waves are completely different respect to known waves like photons and gravitons. However, by reducing dimensions from 11 to 4, topoisomerase-like waves act like the electromagnetic waves. Also, we will show that there are two types of topoisomerase-like waves which one opens the packings of DNA of men and another opens the packings of DNA of women. These waves store information in water. Thus, water should have two structures which are the same in 4-dimensions and different in 11-dimensions.

The outline of the paper is as follows. In section II, we will obtain the Hamiltonian of un-packed DNA in 11-dimensions. In section III, we will consider the packed DNA in 11-dimensional space-time and consider the role of topoisomerase-like waves in opening the packings of this object. In section IV, we consider interaction topoisomerase-like waves with two structures of water in extra dimensions. In section V, we consider the process of extracting DNA from pure water in extra dimensions. The last section is devoted to conclusions.

II. THE STRUCTURE OF UN-PACKED DNA IN 11-DIMENSIONS

In this section, first, we consider the structure of DNA in 11-dimensions. To this aim, we will use of the concept of string theory. This is because that in our model, DNA is a 4 + n-dimensional object which live on manifolds in 11 dimensions and can packed into 4 dimension. In 11-dimensional theories like M-theory, electrons are strings in 11 dimensions and their effects in 4-dimensions can be seen as fermionic fields. These electrons in each atom of a DNA are paired and form the scalar fields like the scalar strings in string theory $(\bar{\psi}_\uparrow \psi_\downarrow \rightarrow X)$. Also, some electrons of each atom are paired with electrons of another atom.
We introduce the action of two interacting atom in 11-dimensions [13, 14]:

\[ S_{\text{atom-atom}} = -T_{\text{tri}} \int d^{11} \sigma \sqrt{\eta^{ab} g_{MN} \partial_a X^M \partial_b X^N + 2 \pi l_s^2 U(F)} \]

\[ U = \left( \sum_{n=1}^{Z} \frac{1}{n!} \left(-\frac{F_1 \cdots F_n}{\beta^2} \right) \right) \]

\[ F = F_{\mu \nu} F^{\mu \nu} \quad F_{\mu \nu} = \partial \mu A_{\nu} - \partial \nu A_{\mu} \]

(1)

where \( z \) is the number of paired electrons, \( g_{MN} \) is the background metric, \( X^M(\sigma^a) \)’s are scalar fields which are constructed from pairing two electrons with opposite spins, \( \sigma^a \)’s are the manifold coordinates, \( a, b = 0, 1, \ldots, 3 \) are world-volume indices of the manifold and \( M, N = 0, 1, \ldots, 11 \) are eleven dimensional space-time indices. Also, \( U \) is the nonlinear field [13] and \( A \) is the photon which exchanges between atoms. Using the method in ref [13, 14], we can obtain the Hamiltonian for interacting atoms:

\[ H_{\text{atom-atom}} = 4 \pi T_{\text{tri}} \int d\sigma_1 \ldots d\sigma_1 \sqrt{1 + \eta^{ab} g_{MN} \partial_a X^M \partial_b X^N Q_{z,\text{atom-atom}}} \]

\[ Q_{z,\text{atom-atom}} = Q_{z-1,\text{atom-atom}} \sqrt{1 + \frac{k_2^2}{Q_{z-1,\text{atom-atom}}^2}} \ldots \sqrt{1 + \frac{k_2^2}{Q_{1,\text{atom-atom}}^2}} \]

\[ Q_{1,\text{atom-atom}} = \sqrt{1 + \frac{k_1^2}{\sigma_{1,\text{atom-atom}}^2}} \]

(2)

where \( \sigma \) is the separation distance between two atoms. By substituting \( X \to \psi^\dagger \psi \), we can rewrite the Hamiltonian as:
\[ H_{\text{atom-atom}} = 4\pi T_{\text{tri}} \int d\sigma_1 ... d\sigma_1 Q_{z,\text{atom-atom}} \times \]
\[
\sqrt{1 + \eta^{ab} g_{MN} g_{MN} \psi_{\text{atom1}}^{M,\uparrow} \partial_{\alpha} \psi_{\text{atom2}}^{M,\downarrow} \psi_{\text{atom2}}^{N,\uparrow} \partial_{\beta} \psi_{\text{atom1}}^{N,\downarrow}}
\]
\[
Q_{z,\text{atom-atom}} = Q_{z-1,\text{atom-atom}} \sqrt{1 + \frac{k^2}{Q_{z-1,\text{atom-atom}} \sigma^4_{z,\text{atom-atom}}}}
\]
\[
Q_{1,\text{atom-atom}} = \sqrt{1 + \frac{k^2}{\sigma^4_{1,\text{atom-atom}}}}
\]

where \( \psi_{\text{atom1/atom2}}^{M,\uparrow/\downarrow} \) is the electronic fields of atom1 or atom2. Previously, it has been shown that photons produce some spikes between two objects which by connecting them, some wormhole like tunnels are emerged[13, 14]. Infact, photons produce some wormhole-like tunnels between two atoms (See figure 1). Number of these tunnels depend on the the number of electrons which are paired between two atoms.

\[ E_{z,i-j} = \sqrt{1 + \eta^{ab} g_{MN} g_{MN} \psi_i^{M,\uparrow} \partial_{\alpha} \psi_j^{M,\downarrow} \psi_j^{N,\uparrow} \partial_{\beta} \psi_i^{N,\downarrow}} \]

\[ H_0 = 4\pi T_{\text{tri}} \int d\sigma_1 ... d\sigma_1 Q_6 E_6 \]
\[ Q_6 = \Pi_{n=1}^{5} [\Sigma_{i,j=1}^{n} (1 + Q_{z,i-j})] \]
\[ E_6 = \Pi_{n=1}^{5} [\Sigma_{i,j=1}^{n} (1 + E_{z,i-j})] \]

FIG. 2: Hexagonal and pentagonal shapes of bases in a DNA

In a DNA, atoms are placed in a hexagonal and pentagonal molecules (See figure 2). In a hexagonal molecule, each atom can interact with two atoms directly and three other atoms indirectly. We can write the Hamiltonian of this system as:
where \(i, j\) are labels of atoms in hexagonal molecule. The same results can be obtained for pentagonal molecules:

\[
Q_{z,i,j} = Q_{z-1,atom-atom} \sqrt{1 + \frac{k_2^2}{Q_{z-1,i,j}^4 \sigma_{z,i,j}^4}} \cdots \sqrt{1 + \frac{k_2^2}{Q_{1,i,j}^4 \sigma_{1,i,j}^4}} \tag{4}
\]

In one un-packed DNA, there are \(N\) hexagonal and \(M\) pentagonal molecules. These molecules interact with each other and exchange the information. We can write the Hamiltonian of an un-packed DNA in 11-dimension as:

\[
H_{un-packed,DNA} = 4\pi T_{tri} \int d\sigma_{11} \cdots d\sigma_1 Q_{un-packed,DNA} E_{un-packed,DNA}
\]

\[
Q_{un-packed,DNA} = \Pi_{n=1}^N \left[ \Sigma_{i,j=1}^n (1 + Q_{6,i,j}) \right] \Pi_{m=1}^M \left[ \Sigma_{i,k=1}^m (1 + Q_{5,i,j}) \right] \times \Pi_{n=1}^N \left[ \Sigma_{i,j=1}^n (1 + Q_{6-5,i,j}) \right] \Pi_{m=1}^M \left[ \Sigma_{i,k=1}^m (1 + Q_{5-6,i,j}) \right]
\]

\[
E_{un-packed,DNA} = \Pi_{n=1}^N \left[ \Sigma_{i,j=1}^n (1 + E_{6,i,j}) \right] \Pi_{m=1}^M \left[ \Sigma_{i,k=1}^m (1 + E_{5,i,j}) \right] \times \Pi_{n=1}^N \left[ \Sigma_{i,j=1}^n (1 + E_{6-5,i,j}) \right] \Pi_{m=1}^M \left[ \Sigma_{i,k=1}^m (1 + E_{5-6,i,j}) \right] \tag{6}
\]

where \(Q_{6,i-j}\) and \(E_{6,i-j}\) are parameters of Hamiltonians of \(i\)-th and \(j\)-th hexagonal molecules in 11-dimensions, \(Q_{5,i-j}\) and \(E_{5,i-j}\) are parameters of Hamiltonians of \(i\)-th and \(j\)-th pentagonal molecules and \(Q_{5-6,i-j}\) and \(E_{5-6,i-j}\) are parameters of Hamiltonians of \(i\)-th hexagonal and \(j\)-th pentagonal molecules. This Hamiltonian contain all interactions between various types of molecules in a DNA. It is clear that shape of molecules have a direct effect.
on the storing information in this system. When, a wave achieve to a DNA, read information which is stored as the exchanged energy between hexagonal and pentagonal molecules. This amount of information is more than what is used in biology. This isn’t all the story of DNA. This Hamiltonian is true only for un-winding and un-packed DNA. However, it is clear that DNA packed at least 3 or 4 times. In next section, we consider this subject.

III. THE STRUCTURE OF PACKED DNA AND THE ROLE OF TOPOISOMERASE-LIKE WAVES.

When, a DNA is packed, some extra fields are emerged that play the role of extra photons in 4-dimensions (see figure 3). These fields change the action and Hamiltonian of DNAs and produce some new wormhole-like tunnels. For example, the interaction of two atoms can be written as:

\[
S_{\text{atom-atom}} = -T_{\text{tri}} \int d^{11} \sigma \sqrt{\eta^{ab} g_{MN} \partial_a X^M \partial_b X^N + 2\pi l_s^2 U(F) + +2\pi l_{s}^2 \bar{U}(\bar{F})}
\]

\[
U = \left( \sum_{n=1}^{z} \frac{1}{n!} \left( -F_1 \cdots F_n \right) \right)
\]

\[
\bar{U} = \left( \sum_{n=1}^{\bar{z}} \frac{1}{n!} \left( -\bar{F}_1 \cdots \bar{F}_n \right) \right)
\]

\[
F = F_{\mu \nu} F^{\mu \nu} \quad F_{\mu \nu} = \partial_\mu A_\nu - \partial_\nu A_\mu
\]

where \( z \) is the number of paired electrons, \( \bar{z} \) is the number of photons which are produced by the packings of DNA, \( g_{MN} \) is the background metric, \( X^M(\sigma^a) \)'s are scalar fields which are

FIG. 3: Packing of two atoms produces some new fields which are shown by blue color.
constructed from paring two electrons with opposite spins, $\sigma^a$'s are the manifold coordinates, $a, b = 0, 1, ..., 3$ are world-volume indices of the manifold and $M, N = 0, 1, ..., 11$ are eleven dimensional spacetime indices. Also, $U$ is the nonlinear field [13] and $A$ is the photon which exchanges between atoms. Also, $\tilde{A}$ is the photon which is emerged by the packings of DNA.

We can rewrite equation (3) as follows:

$$H_{\text{atom-atom}} = 4\pi T_{\text{tri}} \int d\sigma_{11} ... d\sigma_1 \left[ (1 + Q_{z,\text{atom-atom}}) (1 + \bar{Q}_{z,\text{atom-atom}}) \right] \times$$

$$\sqrt{1 + \eta^{ab}g_{MN}g_{MN} \bar{\psi}_{\text{atom1}} \partial_{a} \bar{\psi}_{\text{atom2}} \psi_{\text{atom2}} \partial_{b} \psi_{\text{atom1}}} \times$$

$$\sqrt{1 + \eta^{ab}g_{MN}g_{MN} \bar{\psi}_{\text{atom1}} \partial_{a} \bar{\psi}_{\text{atom2}} \psi_{\text{atom2}} \partial_{b} \psi_{\text{atom1}}}$$

$$\bar{Q}_{z,\text{atom-atom}} = \bar{Q}_{z-1,\text{atom-atom}} \sqrt{1 + \frac{k^2_2}{Q_{z-1,\text{atom-atom}} \theta^4_{z,\text{atom-atom}}} \ldots} \sqrt{1 + \frac{k^2_2}{Q_{1,\text{atom-atom}} \theta^4_{1,\text{atom-atom}}}}$$

$$Q_{1,\text{atom-atom}} = \sqrt{1 + \frac{k^2_2}{Q_{1,\text{atom-atom}} \sigma^4_{1,\text{atom-atom}}}}$$

$$Q_{z,\text{atom-atom}} = Q_{z-1,\text{atom-atom}} \sqrt{1 + \frac{k^2_2}{Q_{z-1,\text{atom-atom}} \sigma^4_{z,\text{atom-atom}}} \ldots} \sqrt{1 + \frac{k^2_2}{Q_{1,\text{atom-atom}} \sigma^4_{1,\text{atom-atom}}}}$$

$$Q_{1,\text{atom-atom}} = \sqrt{1 + \frac{k^2_2}{Q_{1,\text{atom-atom}} \sigma^4_{1,\text{atom-atom}}}}$$

where $\sigma$ is the separation distance between two atoms and $\theta$ is the angle of packings. Also, packing of DNA changes the couplings between fermions and produce some new couplings which are presented by $\bar{\psi}$. Generalizing these calculations to all molecules of DNA and following the method in previous section, we rewrite equation (6) as:

$$H_{\text{DNA}} = 4\pi T_{\text{tri}} \int d\sigma_{11} ... d\sigma_1 Q_{\text{DNA}} E_{\text{DNA}}$$

$$Q_{\text{DNA}} = \sum_{M,N,X,Y=1}^{W} Q_{\text{un-packed, DNA, N, M}} Q_{\text{packed, DNA, X, Y}}$$

$$E_{\text{DNA}} = \sum_{M,N,X,Y=1}^{W} E_{\text{un-packed, DNA, N, M}} E_{\text{packed, DNA, X, Y}}$$

$$Q_{\text{un-packed, DNA, M, N}} = \prod_{n=1}^{N} \left[ \Sigma_{i,j=1}^{n} \left( 1 + Q_{6, i-j} \right) \right] \prod_{m=1}^{M} \left[ \Sigma_{l,k=1}^{m} \left( 1 + Q_{5, i-j} \right) \right] \times$$

$$\prod_{n=1}^{N} \left[ \Sigma_{i,j=1}^{n} \left( 1 + Q_{6-5, i-j} \right) \right] \prod_{m=1}^{M} \left[ \Sigma_{l,k=1}^{m} \left( 1 + Q_{5-6, i-j} \right) \right] \times$$

$$E_{\text{un-packed, DNA, M, N}} = \prod_{n=1}^{N} \left[ \Sigma_{i,j=1}^{n} \left( 1 + E_{6, i-j} \right) \right] \prod_{m=1}^{M} \left[ \Sigma_{l,k=1}^{m} \left( 1 + E_{5, i-j} \right) \right] \times$$

$$\prod_{n=1}^{N} \left[ \Sigma_{i,j=1}^{n} \left( 1 + E_{6-5, i-j} \right) \right] \prod_{m=1}^{M} \left[ \Sigma_{l,k=1}^{m} \left( 1 + E_{5-6, i-j} \right) \right]$$
\[
Q_{\text{packed,DNA,X,Y}} = \prod_{n=1}^{N} \left[ \sum_{i,j=1}^{n} (1 + \bar{Q}_{6,i-j}) \right] \prod_{m=1}^{M} \left[ \sum_{l,k=1}^{m} (1 + \bar{Q}_{5,l-k}) \right] \times \\
\prod_{n=1}^{N} \left[ \sum_{i,j=1}^{n} (1 + \bar{Q}_{6-5,i-j}) \right] \prod_{m=1}^{M} \left[ \sum_{l,k=1}^{m} (1 + \bar{Q}_{5-6,l-k}) \right] \\
E_{\text{packed,DNA,X,Y}} = \prod_{n=1}^{N} \left[ \sum_{i,j=1}^{n} (1 + \bar{E}_{6,i-j}) \right] \prod_{m=1}^{M} \left[ \sum_{l,k=1}^{m} (1 + \bar{E}_{5,l-k}) \right] \times \\
\prod_{n=1}^{N} \left[ \sum_{i,j=1}^{n} (1 + \bar{E}_{6-5,i-j}) \right] \prod_{m=1}^{M} \left[ \sum_{l,k=1}^{m} (1 + \bar{E}_{5-6,l-k}) \right]
\] (9)

FIG. 4: Packing of DNA produces some new fields

where \( w = M + N + X + Y \) is the number of total fields which are emerged in a packed DNA. \( M, N \) are numbers of fields in un-packed DNA and \( X, Y \) are number of fields which are produced by packings of DNA. This system is very complicated and waves couldn’t read it’s information easily (See figure 4). They should open packings of DNA in extra dimensions and make it’s topology simple. For this reason, it is needed that the waves give an appropriated energy to DNA, excite it and open it’s packings. In these conditions, total energy and topology system tend to a constant number. We can write:

\[
1 = H_{\text{DNA}} + H_{\text{topoisomerase-like-wave}} = \\
4\pi T_{\text{tri}} \int d\sigma_{11} ... d\sigma_{1} [Q_{\text{DNA}} E_{\text{DNA}} + Q_{\text{topoisomerase}} E_{\text{topoisomerase}}] = \\
4\pi w \frac{V_{11-w}}{V_{11-w}} \int d\sigma_{11} ... d\sigma_{1} \prod_{n=1}^{w} \left[ \delta(\sigma_{n} + \theta_{n}) \right]
\] (10)

where we have replaced \( 4\pi T_{\text{tri}} \) by \( \frac{4\pi w}{V_{11-w}} \). Here, \( V_{11-w} \) is the volume of space which is empty of DNA. To obtain this delta function, we can use of waves that number of packed
manifolds in them is equal to number of un-packed manifolds of DNA and also, number of un-packed manifolds in them is equal to number of packed manifolds in DNA. To this aim, we put $X,Y$ instead of $M,N$ and also $M,N$ instead of $X,Y$ in Hamiltonian of DNA (equation (9)) and write:

$$H_{\text{topoisomerase-like-wave}} = 4\pi T_{\text{tri}} \int d\sigma_1...d\sigma_1 Q_{\text{topoisomerase}} E_{\text{topoisomerase}}$$

$$Q_{\text{topoisomerase}} = \sum_{M,N,X,Y=1} W_{M,N,X,Y} Q_{\text{un-packed,topoisomerase},X,Y} Q_{\text{packed,topoisomerase},M,N}$$

$$E_{\text{topoisomerase}} = \sum_{M,N,X,Y=1} E_{\text{un-packed,topoisomerase},X,Y} E_{\text{packed,DNA},M,N}$$ (11)

Using equations (9 and 11), we can obtain the explicit form of delta function in equation (10) for small values of $K (K \rightarrow 0)$:

$$\delta(\sigma_n - \theta_n) = \frac{1}{\pi} \frac{[K\theta_n + K\sigma_n]^2}{[K\theta_n + K\sigma_n]^2 + [\theta_n + \sigma_n]^2}$$ (12)

FIG. 5: Topoisomerase-like waves in extra dimensions open packings of DNAs

Above results show that to exchange information between DNAs, it is needed to some waves which their structures are similar to topoisomerases in biology (See figure 5). In these systems, number of packed manifolds is equal to number of un-packed manifolds of DNA and number of un-packed manifolds is equal to number of packed manifolds in DNA. By joining these waves to DNA, Hamiltonian and topology of system tends to a constant number. In these conditions, all information of DNA can be recovered and transmitted.

IV. THE STRUCTURE OF WATER IN EXTRA DIMENSIONS.

In this section, we consider the structures of water from point view of one observer which live in extra dimensions. Molecules of water are constructed from one oxygen and two atoms
of Hydrogen. This system can form a trigonal manifold in 4-dimensions (See figure 6). To show the interaction of this system with other molecules and waves, we use of the concept in string theory. We assume that electrons of atoms are paired and form the scalar fields like the scalar strings in string theory ($\bar{\psi}\psi \rightarrow X$). Also, each atom in one molecule interacts with other two atoms via exchanging photon ($A$).

![FIG. 6: The trigonal manifold of molecules of water](image)

To begin, we introduce the action of triangular manifold of water [13, 14]:

$$S_{\text{water,4-dimensions}} = -T_{\text{tri}} \int d^4\sigma \sqrt{\eta^{ab}g_{MN}\partial_a X^M \partial_b X^N + 2\pi l_s^2 U(F)}$$

$$U = \left( \sum_{n=1}^{2} \frac{1}{n!} \left( -\frac{F_{1,0-H..F_{n,0-H}}}{\beta^2} + F_{H-H} \right) \right)$$

$$F = F_{\mu\nu} F^{\mu\nu} \quad F_{\mu\nu} = \partial_\mu A_\nu - \partial_\nu A_\mu$$

(13)

where $g_{MN}$ is the background metric, $X^M(\sigma^a)$’s are scalar fields which are constructed from paring two electrons with opposite spins, $\sigma^a$’s are the manifold coordinates, $a, b = 0, 1, ..., 3$
are world-volume indices of the manifold and $M, N = 0, 1, ..., 11$ are eleven dimensional spacetime indices. Also, $G$ is the nonlinear field [11] and $A$ is the photon which exchanges between atoms. Using the method in ref [13], we can obtain the Hamiltonian for triangular manifolds:

$$H_{\text{water,4-dimensions}} = 4\pi T_{\text{tri}} \int d\sigma_3 d\sigma_2 d\sigma_1 \sqrt{1 + \eta^{ab}g_{MN}\partial_a X^M \partial_b X^N} Q_{\text{water,4-dimensions}}$$

$$Q_{\text{water,4-dimensions}} = Q_{H-H} + Q_{2,O-H}$$

$$Q_{H-H} = \sqrt{1 + \frac{k_1^2}{\sigma_{1,H-H}^4}}$$

$$Q_{2,O-H} = Q_{1,O-H} \sqrt{1 + \frac{k_1^2}{k_2^2 Q_{1,O-H}^4}}$$

$$Q_{1,O-H} = \sqrt{1 + \frac{k_1^2}{\sigma_{1,O-H}^4}}$$  \hspace{1cm} (14)

By substituting $X \rightarrow \psi^\uparrow \psi_\downarrow$, we can rewrite the trigonal Hamiltonian as:

$$H_{\text{water,4-dimensions}} = 4\pi T_{\text{tri}} Q_{\text{water,4-dimensions}} E_{\text{water,4-dimensions}}$$

$$E_{\text{water,4-dimensions}} = \int d\sigma_3 d\sigma_2 d\sigma_1 \sqrt{1 + \eta^{ab}g_{MN}\psi^M_{\uparrow} \partial_a \psi^M_{\uparrow} \psi^N_{\downarrow} \partial_b \psi^N_{\downarrow}}$$

$$Q_{\text{water,4-dimensions}} = Q_{H-H} + Q_{2,O-H}$$

$$Q_{H-H} = \sqrt{1 + \frac{k_1^2}{\sigma_{1,H-H}^4}}$$

$$Q_{2,O-H} = Q_{1,O-H} \sqrt{1 + \frac{k_1^2}{k_2^2 Q_{1,O-H}^4}}$$

$$Q_{1,O-H} = \sqrt{1 + \frac{k_1^2}{\sigma_{1,O-H}^4}}$$  \hspace{1cm} (15)

where $\psi^M_{\uparrow/downarrow}$ is the electronic fields of Oxygen or Hydrogen atoms. This can’t be total Hamiltonian of water. This is because that this Hamiltonian can’t explain the reason for the emergence of memory in water. To obtain the real Hamiltonian of water, we should go to extra dimensions (See figure 7). Using equations (9,10,15), we obtain

$$1 = H_{\text{DNA,Men}} + H_{\text{topoisomerase-like-wave,Men}} =$$
One of interesting point in this model is the existence differences between topoisomerase-like waves which open packings of DNAs of men with those that open packings of DNAs of women. This is because that type of packings of DNAs in men is different from packings of DNAs in women. Consequently, we should have two different topoisomerase-like waves. On the other hand, experiments show that these waves interact with water and store information in it. If memory of water be accepted, there should be two types of coding for water, one related to waves of men and another corresponded to waves of women. This means that water has two types of structures in 4 +n-dimensions (See figure 9). These structures are the same in four dimensions however their differences can be seen in extra dimensions.

One of examples of teleportation via waters is the teleportation of sperms into the egg (See figure 9). When water of men which includes sperms become near to the water of women which includes egg, they become entangled. When two matters be very entangled, repel other object that be in opposed with this entanglement. For this reason, one of
sperms is repelled by waters and transfer into eggs. Another cause of this teleportation is the entanglement between water inside the egg and water outside it. Sperms radiate some topoisomerse-like waves. These waves create some holes in egg. To fill these holes, sperm should be transferred to egg.

Another main subject is the magnetic fields of earth. It seems that magnetic fields of earth are more complicated of what they are seemed and have structures like topoisomerse-like waves. For this reason, they can contribute in teleportation. They produce some holes appropriated with objects that for filling them, objects should be transferred. The same result can be observed for waves of sun. It seems that in addition to known fields, some topoisomerse-like waves are emitted by sun or other objects in sky. For earth, we can assume that in structure of it’s core, there are some objects similar to DNA which are the main source for radiating these topoisomerse-like waves.

V. EXTRACTING DNA FROM PURE WATER

In this section, we will show that in some conditions, DNA can be extracted from pure water. To this aim, we need to some waves that replace the structure of water in four dimension by it’s structure in extra dimension. First, we multiply equation (17) by \([1 + H_{DNA}]\) and write:

\[
[1 = H_{water, Men} + H_{topoisomerase-like-wave, Men}] \otimes [1 + H_{DNA, Men}]
\]  

(18)
Now, we re-define waves as follow:

\[
H_{\text{special, wave, Men}} = \]

\[
H_{\text{topoisomerase-like wave, Men}}[1 + H_{DNA, Men}][1 - H_{-1, DNA, Men}] - H_{-1, DNA, Men} \times \]

\[
[1 - Q_{DNA, Men}^1 E_{DNA, Men}^{-1} - Q_{DNA, Men}^{-1} E_{DNA, Men}^1] \quad (20)\]

and

\[
H_{\text{special, wave, Women}} = \]

\[
H_{\text{topoisomerase-like wave, Women}}[1 + H_{DNA, Women}][1 - H_{-1, DNA, Women}] - H_{-1, DNA, Women} \times \]

\[
[1 - Q_{DNA, Women}^1 E_{DNA, Women}^{-1} - Q_{DNA, Women}^{-1} E_{DNA, Women}^1] \quad (21)\]

Replacing waves of (20 and 21) in equation (18 and 19), we can obtain below relations:
Above equations show that there are some special waves that can interact with water and extract it’s DNA-structure from extra dimensions. These waves can produced by mixing topoisomerase-like waves and radiated waves from DNA. For this reason, if we have two waters, one include DNA and another pure and put both of them near a source of topoisomerase-like waves like sun, earth or others, some special waves are produced. These new waves interact with pure water and extract it’s structure from extra dimensions.

Now, the question arises that how we could store these main waves. We can show that there are some mechanism for storing topoisomerase like waves in nature. For example, trees could store all topoisomerase like waves and then apply them for special aims. If we put new born chicken under some trees, they exchange topoisomerase like waves and trees could act like artificial mother of these chickens. Using the stored topoisomerase-like waves, we could control the growth of cells of fetus of chicken outside the egg and produce chicken before 21 days.

FIG. 11: Blood cells near stem cells of embryo of chicken can go back to initial stages

In figure 11, we have shown result of some of our present experiments. Under some conditions, we observe that stem cells of embryo of chicken can go back to initial cells and extra
stem cells can be produced. This is because that specialized cells exchange topoisomerase-like waves with stem cells and becomes excited and then go back to initial states.

VI. SUMMARY AND DISCUSSION

Until now, it has been known that DNA can radiate electromagnetic signals. In addition to electromagnetic waves, DNAs emit some new types of waves which have the shape of topoisomerases. Topoisomerases are enzymes that participate in the overwinding or underwinding of DNA. We generalised this concept to waves which participate in the overwinding or underwinding of DNA in extra dimensions. These topoisomerase-like wave have 4 + n-dimensional shapes, open DNA packings, read it and pack it again. This is because that DNA is an object which live in 11-dimensional space-time and compacted in 3 + 1 dimensional manifold. However if we see topology of DNA in extra dimension, we can open packings of it and obtain a simpler shape. Among various types of waves, only special waves could interact with DNA, which could move in 11 dimensions and see the un-packed structure of it in extra dimensions. These waves couldn’t be classified as the electromagnetic or gravitational waves. However, by reducing dimensions from 11 to 4 or 3, they obtain some properties similar to known waves.

Another interesting point in this model is the existence differences between topoisomerase-like waves which open packings of DNAs of men with those that open packings of DNAs of women. This is because that type of packings of DNAs in men is different from packings of DNAs in women. Consequently, we should have two different topoisomerase-like waves. On the other hand, experiments show that these waves interact with water and store information in it. If memory of water be accepted, there should be two types of coding for water, one related to waves of men and another corresponded to waves of women. This means that water has two types of structures in 4 +n-dimensions. These structures are the same in four dimensions however their differences can be seen in extra dimensions.

One of examples of teleportation via waters is the teleportation of sperms into the egg (See figure 9). When water of men which includes sperms become near to the water of women which includes egg, they become entangled. When two matters be very entangled, repel other object that be in opposed with this entanglement. For this reason, one of sperms is repelled by waters and transfer into eggs. Another cause of this teleportation is
the entanglement between water inside the egg and water outside it. Sperms radiate some topoisomerase-like waves. These waves create some holes in egg. To fill these holes, sperm should be transferred to egg.

Another main subject is the magnetic fields of earth. It seems that magnetic fields of earth are more complicated of what they are seemed and have structures like topoisomerase-like waves. For this reason, they can contribute in teleportation. They produce some holes appropriated with objects that for filling them, objects should be transferred. The same result can be observed for waves of sun. It seems that in addition to known fields, some topoisomerase-like waves are emitted by sun or other objects in sky. For earth, we can assume that in structure of it’s core, there are some objects similar to DNA which are the main source for radiating these topoisomerase-like waves.

Finally, in this paper, we have shown that there are some special waves that can interact with water and extract it’s DNA-structure from extra dimensions. These waves can produced by mixing topoisomerase-like waves and radiated waves from DNA. For this reason, if we have two waters, one include DNA and another pure and put both of them near a source of topoisomerase-like waves like sun, earth or others, some special waves are produced. These new waves interact with pure water and extract it’s structure from extra dimensions.

Maybe, one asks that how we could store topoisomerase like waves. Nature proposed some mechanism for storing topoisomerase like waves. For example, trees could act like the battery for these waves and store all topoisomerase like waves and then use them for special aims. Trees could exchange topoisomerase like waves with new born chicken and act like artificial mother for them. Using the stored topoisomerase-like waves, the growth of cells of fetus of chicken outside the egg could be controlled and time of production of chicken could becomes less than 21 days.

In figure 11, we have shown result of some of our present experiments. Under some conditions, we observe that stem cells of embryo of chicken can go back to initial cells and extra stem cells can be produced. This is because that specialized cells exchange topoisomerase like waves with stem cells and becomes excited and then go back to initial states.
VII. ACKNOWLEDGEMENTS

The work of Alireza Sepehri has been supported by Bio-technology center of Iran-Tehran. Our experiments show that if we put material of an egg near cells of blood in one dish, they can convert to stem cells. This needs to some special conditions.

[12] A Vologodskii (September 2011). "Unlinking of supercoiled DNA catenanes by type IIA

