

# Coriolis forces, earth magnetic field, and nonlinear physics

## Abstract

The article explains the connections between Coriolis forces, earth magnetic field, and nonlinear physics. In a previous article, it was shown that the Earth magnetic field rules the global air circulation of the electrically charged atmosphere over the tropical zones (called Hadley cells) and the adjacent to them zones (called Ferrell cells). Also, recently observed widening of the tropical belt could easily be explained with the weakening magnetic field of the Earth, which weakens the earth ionosphere. The ionosphere consists of ions of the solar wind caught by the earth's magnetic field - it is a shield of the earth against the strong solar wind. When the earth's magnetic field is weaker, the shield is weaker, the earth receives more solar radiation and its climate warms up. Also, publications on ocean whirlpools collecting plastic garbage, called gyres, report that they are only in the zone of 30° North and South of the equator. This could be explained only if the Earth magnetic field was involved.

**Keywords:** coriolis forces, nonlinear physics, earth magnetic field, ocean gears, widening of tropic belt

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## Introduction

### The earth spinning can explain the uneven growth of the earth

Here is an interesting fact reported in:<sup>1</sup> The earth's diameter has grown 1.5 times in the last 300 million years and the cosmic dust, which was believed to cause earth growth, is only 40 tones per year. Thus, the diameter of Earth grows with the years, but it was also noticed that more material is deposited on the Northern pole, while the southern pole is losing material.

The only way to explain this odd deposit is to use nonlinear physics. Following the rule of the folded fingers of the right hand, if the folded fingers show the direction of the currents, the vertical thumb shows the direction of the magnetic field induced by the currents. The same rule applies to spinning objects: if the folded fingers show the direction of spinning, the vertical thumb shows the direction of the magnetic field induced by the spinning. When we apply this rule to the clockwise spinning Earth with folded fingers showing the direction of spinning, the vertical thumb shows the direction of the magnetic field induced by the spinning. This means that as the Earth spins clockwise, as it does now, the northern pole will be a vortex spinning clockwise and sucking energy in because the cranked magnetic field is toward the Earth.

If at clockwise spinning of the Earth, the northern pole sucks energy, it should not be surprising that more material is deposited on the Northern pole. At the same clockwise spinning of the Earth, following the rule of the folded fingers of the right hand, since at the southern pole the induced magnetic field is out of the Earth, the southern pole is going to lose energy. Then we shouldn't be surprised that the southern pole is the place where material is lost.

If the diameter of Earth continues to grow as the Earth spins, this means that the spinning is creating more and more matter. For this

to happen, space matrix must exist because only contact with this space matrix can create matter as the Earth continues to spin. So the Universe was not created, it continues to create itself. There is no other explanation but this and this requires introducing a space matrix in our scientific considerations. In science, we speak about periodic flipping of the magnetic poles of the Sun. However, since the solar magnetic field is induced by the Sun's spinning, flipping of the magnetic poles actually means periodic changes of the direction of spinning of the Sun. Should our Earth change its direction of spinning periodically, just as our Sun does, at flipping of the earth magnetic poles, the dented southern pole would become northern and it would build up.

However, since the earth is cleft, as our satellites found,<sup>2</sup> the flipping of the earth magnetic poles is irregular (not periodic). If so, with time the shape of our Earth may become even more irregular. While the deposit of more materials on Earth is ruled by the spinning of the Earth, as we shall see in the next section, the Earth's spinning does not determine directly the so-called Coriolis forces.

### Nonlinear physics offers alternative explanation to the coriolis forces

Coriolis published his work in 1835, claiming: *"If a body is moving in any direction, there is a force arising from Earth's rotation, which always deflects it to the right in the north hemisphere and to the left in the southern."*<sup>3</sup> This means that all objects thrown in the northern hemisphere tend to deflect to the right and all objects thrown in the southern hemisphere tend to deflect to the left. It was called Coriolis force and it explains how things were found to be.

Our science will become real science when it can describe not only how things were found to be, but it can explain why things are the way they are. Should the Earth spinning determine the deflection, since the Earth spins in the same direction in the northern and southern hemisphere, the deflection of thrown objects should be the same in the northern and southern hemisphere of the Earth.

Coriolis stated in 1835 that the Earth spinning tends to deflect objects to the right in the northern hemisphere and to the left in the southern hemisphere. Nonlinear physics immerged about 100 years later. Now (almost 200 years later) the nonlinear physics is stepping in to explain that not the Earth spinning, but the spinning NEMF of the Earth causes this deflection.

Nonlinear physics tells us that the NEMF of our Earth must suck energy through both magnetic poles to be shaped as a torus. For this to happen, the Earth's NEMF must spin like a vortex (clockwise) in the northern hemisphere and like an anti-vortex (counterclockwise) in the southern hemisphere.<sup>3</sup> Then we could expect deflection to the right (vortex) in the northern hemisphere and the deflection to the left (anti-vortex) in the southern hemisphere. It is a fact that all tornadoes in the northern hemisphere spin clockwise (rightward), while all tornadoes in the southern hemisphere spin counterclockwise (leftward in 98% of the cases). We still believe today that this is ruled by the Coriolis force, which causes deflection to the right in the northern hemisphere (which is clockwise) and deflection to the left in the southern hemisphere (which is counterclockwise).<sup>4</sup>

But what is a tornado in the northern hemisphere? It is a clockwise spinning (spinning to the right) of the electrically charged atmosphere, which in nonlinear physics is called vortex. What is a tornado in the southern hemisphere? It is a counterclockwise (spinning to the left) of the electrically charged atmosphere, which in nonlinear physics is called anti-vortex.

What would determine the spinning of the electrically charged atmosphere is the electromagnetic field (EMF) of the Earth, which has the shape of a torus. Since in nonlinear physics the three-dimensional attractor has the shape of a torus,<sup>5</sup> the torus-shape electromagnetic field (EMF) of the Earth must be nonlinear electromagnetic field (NEMF). The torus shape can be easily explained with the way stars and planets are born.<sup>4</sup> Nonlinear physics is teaching that only anti-vortices can give birth of matter because according to the rule of the folded fingers of the right hand, when the folded fingers are in the counterclockwise direction of spinning anti-vortex, the induced magnetic field is outward and would create an outgoing flux of energy and matter.<sup>3</sup>

To have a planet or star born, this flux needs to be cut off. This could be done only with short spinning in opposite (clockwise) direction. This is what makes the NEMF of all stars and planets a vortex (in the northern hemisphere) on top of anti-vortex (in the southern hemisphere), which leads to the torus shaped electromagnetic fields of all stars and planets.<sup>3</sup> This means that nonlinear physics offers an alternative explanation of the Coriolis forces: in the northern hemisphere the deflection of thrown objects is to the right (clockwise) because the Earth's NEMF in the northern hemisphere is a vortex spinning clockwise; in the southern hemisphere the deflection is to the left (counterclockwise) because the Earth's NEMF in the southern hemisphere is an anti-vortex spinning counterclockwise.

Thus, the fact that thrown objects deflect to the right in the northern hemisphere and to the left in the southern hemisphere (so-called Coriolis forces) reflect the fact that the nonlinear electromagnetic field (NEMF) of our Earth is vortex in the northern hemisphere on top of anti-vortex in the southern hemisphere.<sup>3</sup> It results from the way the stars and the planets were created<sup>3</sup> and is the basis of the torus shape of the NEMF of our Earth, Sun, etc. Also, the clockwise (to the right) spinning of the tornadoes in the northern hemisphere and their

counterclockwise (to the left) spinning in the southern hemisphere is ruled by the NEMF of our Earth, which is vortex spinning clockwise (to the right) in the northern hemisphere and anti-vortex spinning counterclockwise (to the left) in the southern hemisphere.

### Explaining ocean gyres

Erick von Sebille, in an article published in Physics Today of February 2015, describes the ocean gyres – whirlpools at the center of which plastic garbage accumulates, supposedly driven by Coriolis forces. There are five such ocean gyres - two in the northern hemisphere spinning clockwise and three in the southern hemisphere spinning counterclockwise Figure 1.<sup>6</sup> Just like in the case of tornadoes, not Coriolis forces but nonlinear physics offers explanation of it. All gyres are in the subtropical areas of 30° N and 30° S of the equator (Figure 1). Nobody could explain why the gyres are only there. However, considering the fact that the earth spinning induces ring currents in the red liquid magma, which crank the earth magnetic field, and these ring currents are different in the zones 0°–30° and 30°–60° north and south of the equator, we can relate the gyres to the places where the ring currents are interrupted or not present (Figure 2).

Please, notice that in the northern hemisphere the gyres spin clockwise because the northern half of the Earth's NEMF is a vortex spinning clockwise. In the southern hemisphere the gyres spin counterclockwise because the southern half of the Earth's NEMF is an anti-vortex spinning counterclockwise (Figure 1). The earth spinning induces ring currents in the liquid magma, which crank the NEMF of the Earth. Since the spinning induce more turbulence in the equatorial zone, more ring currents are induced there than in the adjacent zones of 30° to 60° north and south of the equator Figure 2.

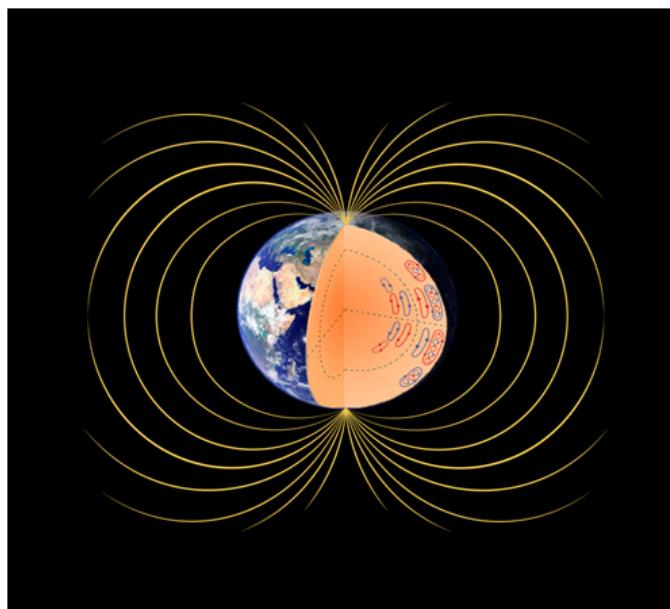


**Figure 1** Pictured are the ocean gyres, which are only in the zones 30° north and south of the equator and spin clockwise in the northern hemisphere and counterclockwise in the southern hemisphere.

Also, under the equatorial zone the ring currents are running upward at the equator and downward at the lines 30° north and south of the equator. However, the ring currents are running in opposite direction in the adjacent zones of 30° to 60° north and south of the equator (Figure 2).<sup>7</sup> The atmospheric science specialists Thomas Burner, Sean Davis, and Dian Seidel wrote an article in the journal Physics Today of December 2014 about the widening of the Earth's tropical belt, which is 0°–30° N and 0°–30°S of the equator.<sup>8</sup> They acknowledged having “troubles locating exactly its edges”.

Our explanation of the smearing of the edges of the Earth's tropical belt is the present weakening of the magnetic field of the Earth.

However, the authors of the above article<sup>8</sup> don't see any correlation with the Earth's magnetic field.



**Figure 2** Pictured are the ring currents induced by the earth spinning in the liquid magma, which crank the magnetic field of the earth.

### Explaining Hadley and Ferrell global air circulation

Also, in the same article<sup>8</sup> the Sun's differential heating of the Earth surface is considered to be the primary driver of the atmospheric global air circulation. However, the author of present article provided evidence in<sup>7</sup> that the earth spinning induces ring currents in the liquid magma, which through the magnetic field they crank, rule the global circulation of the electrically charged air.

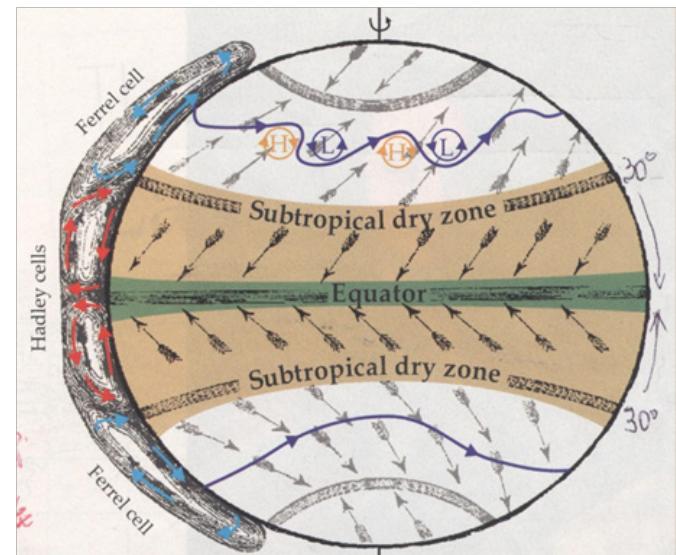
Thus, the global air circulation over the tropical belt, known as Hadley cell (red arrows),<sup>7</sup> is upward at the Equator ( $0^{\circ}$ ) and downward at the Tropics ( $30^{\circ}$ ) (Figure 3). For a specialist acquainted with the earth magnetic field, who knows that the magnetic field was cranked by the ring currents in the earth liquid magma (Figure 2), the global air circulation of the electrically charged atmosphere is in the direction of the ring currents in the earth liquid magma, which crank the earth magnetic field in this area. In 1858, Ferrell claimed that beside the Hadley global air circulation over the earth's tropical zone, there is a global air circulation in the opposite direction at mid-latitudes between  $30^{\circ}$  and  $60^{\circ}$  north and south of the equator. It was called Ferrell global air circulation (Figure 3). Ferrell explained that Coriolis forces determine the direction of the global air circulation, but actually the earth's NEMF determines it.<sup>7</sup>

### Conclusion

Let us sum up the facts. This article explained that if the diameter of our planet Earth continues to grow, this means that matter is continuously created. If so, there must be a space matrix in which the spinning's of objects (like our Earth) continue to create more matter. Thus, the world was not created once and forever. It is self-organized and it is in a state of continuing creation. Alexander Freeman showed in 1924 that the constant  $k$  in the relativistic theory of Einstein, which describes a static once and forever created Universe, must be

considered not a constant, but a function of time and then it could describe an expanding and contracting Universe.<sup>9</sup>

This article also explained from the viewpoint of nonlinear physics and the earth NEMF, why all tornadoes and gyres spin clockwise in the northern hemisphere and counterclockwise in the southern hemisphere. The fact that the gyres are only at latitude  $30^{\circ}$  north and south of the equator (Figure 1) was explained with the brake up of the ring currents (at  $30^{\circ}$  N and  $30^{\circ}$  S of the equator), which crank the earth NEMF (Figure 2). This article also explained the global air circulations in both Hadley and Ferrell cells (Figure 3). They were found to be in opposite direction, which was explained with the opposite running of the ring currents in the liquid magma, which the earth spinning induces. These ring currents determine the direction in which the electrically charged air circulates over the considered earth surface.



**Figure 3** Pictured are the global air circulations: in the Hadley cells (red arrows) over the two equatorial areas and in the Ferrell cells (blue arrows) over the adjacent zones of  $30^{\circ}$  to  $60^{\circ}$  north and south of the equator, in which the air circulates in opposite direction.

In a following article we will provide evidence about what created the global warming and when it will end. In another article, we will explain why the American continent has more hurricanes and tornadoes than any other place on earth. In a third article we will answer the question should we believe in astrology and why we should or should not believe in it, etc.

### Acknowledgments

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### Conflicts of interest

Author declares that there is no conflict of interest.

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