## Hidden transfer of energy or information

Wolfgang Sturm\*
CECOM Hamburg, Germany

In the past, I created a beam of destructive interference and proved that it absorbs energy [<sup>1</sup>]. The energy of the destructive interference is invisible and cannot be measured by any usual photoelectric, thermoelectric or photoacoustic detector [<sup>2</sup>].

Surprisingly, a rudimentary parametric oscillator is able to destroy the interference and recover the hidden energy.

Thus, it is now possible to hide energy or information, transmit it in an invisible and unmeasurable beam, and extract it at any desired place.

## I. Introduction

As shown in [¹], the energy of two non-interfering beams is calculated from their amplitudes as follows:

$$P_{in} \sim (a^2 + b^2)$$

When interference occurs, this energy splits into a visible

$$P_{vis} \sim (a+b)^2$$

and an invisible part:

$$P_{hid} = P_{in} - P_{vis}$$

 $P_{hid} \sim (a - b)^2$ 

In summary:

$$P_{in} = P_{vis} + P_{hid}$$
 
$$P_{in} \sim (a + b)^2 + (a - b)^2$$

In the case of constructive interference:

$$b = a$$

and in the case of destructive interference:

$$b = -a$$

At complete destructive interference, all input energy is hidden in the invisible and unmeasurable  $P_{hid}$ .

The following rudimentary parametric oscillator discovers the hidden energy.

.

<sup>\*</sup> foghunter@web.de

## II. Setup



The system was tested with low-frequency magnetic waves for measurement reasons.

The conversion to other frequencies should be possible.

The transmitting coils A and B generate alternating fields in phase opposition, which are destructively superimposed at the two receiving coils on the right.

The axial distance between the two receiver coils is 5 mm. Both resonant circuits have the same dimensions.



all coils 100 mH

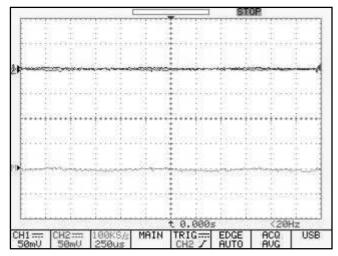
A

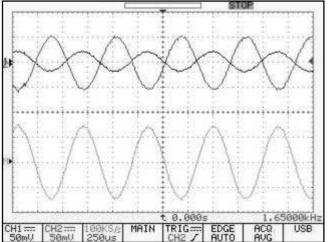
1,6 kHz

B

100n

The coupling should be weak enough that both circuits can oscillate independently. But strong enough that both coils influence each other.





In the scope, the two voltages "a" and "b" are displayed together at top. And the voltage difference "a-b" at the bottom.

The destructive interference causes that no voltage can be measured. It seems there is nothing to detect.

But as an electromagnetic fluctuation occurs at the right time and position, one of the two oscillating circuits fires.

This resonant circuit extracts pump energy from only one of the two waves of the destructive interference. The extracted energy disturbs the fragile balance of the previously void and the second wave appears.

The second oscillating circuit goes into resonance with this other wave. Thus, two voltages with opposite phase are finally created. Their subtraction determines the previously hidden energy, as explained in the introduction.

## III. Discussion

With this method it seems possible to hide energy or information, transmit it in an invisible and unmeasurable beam, and extract it at any desired place. It would also be obvious to search previously unmeasurable electromagnetic waves and energies. The demonstrated method may open a new window in science and technology.

\_

<sup>&</sup>lt;sup>1</sup> W.Sturm, Hidden Energy in the Destructive Interference, <u>viXra:2109.0196</u>, 2021

<sup>&</sup>lt;sup>2</sup> W.Sturm, Measurement of Picoforces from Light, <u>viXra:2110.0011</u>, 2021