

Novel Energies for the Future

- **Technical Reports in History**

- Tesla's famous fuelless Pierce Arrow of 1930/1931
- The Coler converter in the thirties of the last century

- **Theories on Space Energy and Conversion Methods**

- **Applications of Novel Energy Systems**

- Magnetic Generators with Reduced Back Drag
- Magnetic Motors with Spin Coupling to the Space Field

- **Research & Development on Novel Energy Systems**

- Autonomous Resonance-Pulsation-Rotor Systems
- Pulsed Motor-Generator-Systems with Novel Features

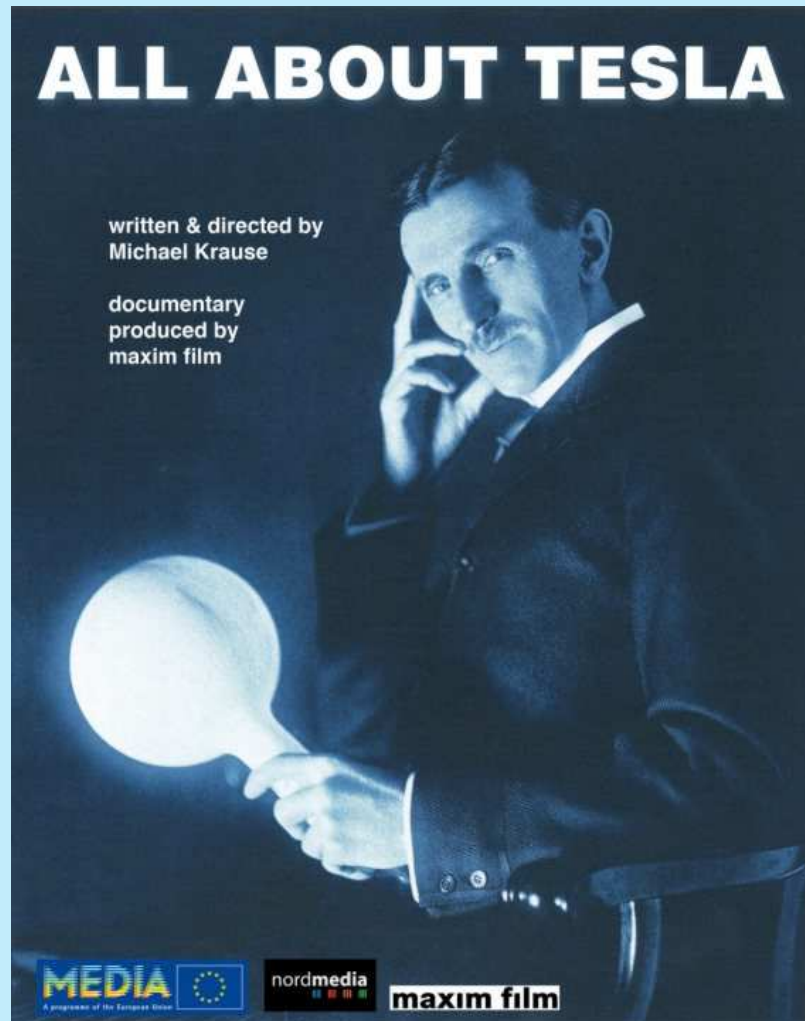
- **Undamped Hydraulic Oscillation Generators**

- **References:**

- www.borderlands.de/Links/NovelEnergyTechnologies.pdf
- www.borderlands.de/Links/WCEC031116.pdf

Historical Reports

Nikola Tesla reported 1931, that he has realized a drive system which uses a new kind of energy taken directly from space.



On July 10th, 1932, Tesla announced in *The Brooklyn Eagle* „**I have harnessed the cosmic rays and caused them to operate a motive device.**”

In 1933, he made the same assertion for the *New York American*, November 1st: **This new power** for the driving of the world's machinery will be **derived from** the energy which operates the universe, the **cosmic energy** ... which is **everywhere present in unlimited quantities.**

Personal Testimony

- On Nov. 27, 1930, **Nikola Tesla** invited **Heinrich Jebens**, director of the “German Invention House”, to a ride in his luxurious **Pierce Arrow** car, which was driven by converted **“Energy from Space”**.
- **As soon as Tesla slid two small rods into the converter box, the motor started to move. Tesla drove with Mr. Jebens to the Niagara Falls. The car reached a top speed of 90 miles per hour effortlessly.**
- **The son of Heinrich Jebens, Mr. Klaus Jebens, wrote a secret report** about this meeting with Nikola Tesla, see e.g. the interview in NET-Journal, issue No. 5/6, 2001, pp. 4-8, online see: www.borderlands.de/net_pdf/NET0501S4-9.pdf
www.borderlands.de/Links/TeslaCar.pdf



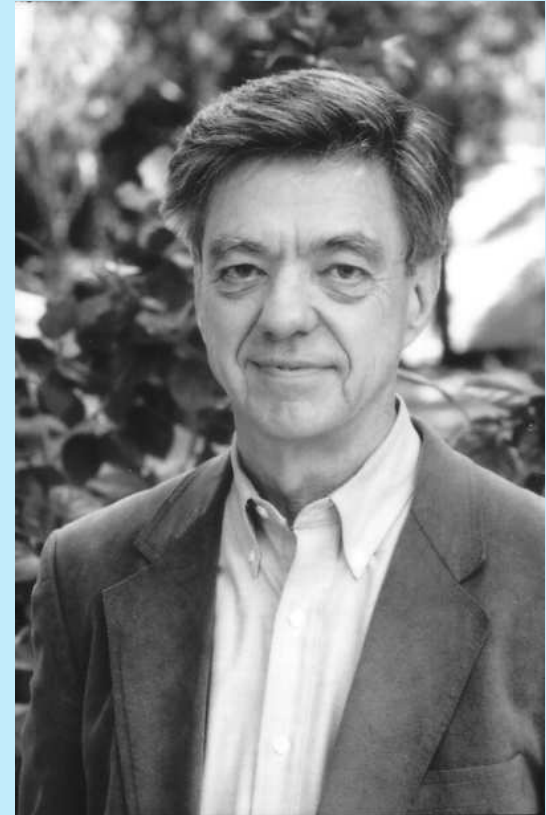
The Coler Converter

- The Magnetstromapparat consisted of **six permanent magnets** wound so that the circuit includes the magnet itself as well as the **windings around the magnets**.
- These six magnet-coils are arranged in a hexagon and **connected in a circuit** that includes two condensers, a switch and a pair of solenoid coils, one sliding inside the other.
- Modersohn's connection with Rheinmetall Borsig, and hence with the official Hermann Goering combine gave him an advantage in this.
- Coler then in **1937** built for Modersohn's Company a **larger version with an output of 6 kilowatts**. He claimed it **powered his house and laboratory for three years**. This led in 1943 to support by the German Navy.
- www.nanoworld.org.ru/data/01/data/club/overuni/hcoler1.htm



Zero-Point-Field-Energy

- The **electromagnetic ZPF** spectrum is generated by the motion of charged particles throughout the universe.
- **ZPF interaction** constitutes an underlying, stable 'bottom-rung' vacuum state that **reproduces itself** on a dynamic-generation basis.
- It is **possible to “mine” vacuum energy** for practical use, e.g. by using Casimir-force-attraction effects
- By careful consideration of such proposals we could **extract** in the future **energy from the vacuum**, as part of a generalized '**vacuum engineering**' concept.



**Harold E. Puthoff,
Ph.D., EarthTeach
International, Inc.**

Zero-Point-Field-Energy

- In his **US-patent No. 7,379,286** Bernard Haisch **proposed** together with his partner Garret Moddel a **technical system for extracting energy from the vacuum** in an continuous way.
- The patented system **effects the orbital electron energy levels** by **suppressing the EM quantum vacuum energy** at appropriate frequencies in **Casimir cavities**.
- **By capturing and converting such energies** the **atoms are forced to be reenergized by the ambient EM vacuum**.
- In this way **ZPF-energy is extracted locally and replenished globally** from and by the EM quantum vacuum.



Bernard Haisch, german-born american astrophysicist with research in solar-stellar astrophysics and stochastic electrodnamics

New Energy Sources from the Point of View of Unitary Quantum Theory

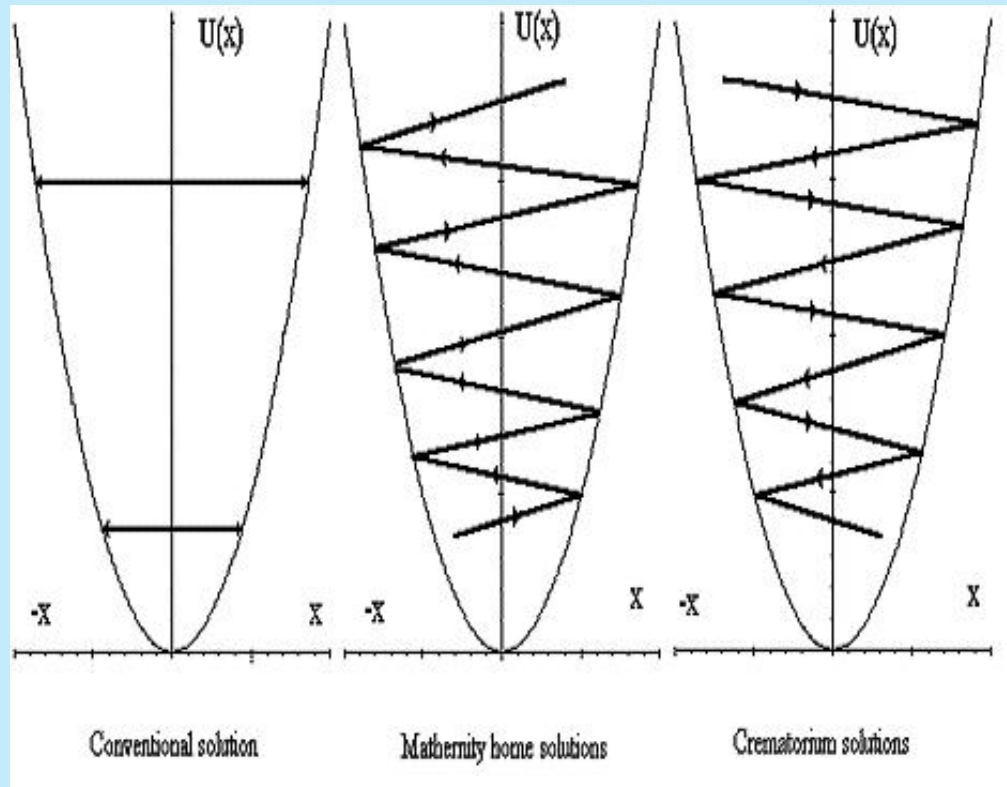


- *The Unitary Quantum Theory **UQT** is a **new version of the field quantum theory**, which has been developed by Prof. L.Sapogin for over 25 years, Technical University Madi*
- *UQT provides a **theoretical basis for the development of new sources of energy** and for the explanation of the operation principles of the existing and functioning **over-unity devices**.*

Prof. L. Sapogin presented his theory in Egerkingen, Switzerland, 1998

*For example, such processes can be named as **generation of excessive heat, excessive electric energy in an anomalous gas discharge**, excess generation of electric energy **when electric current passes through proton-conducting ceramics etc.***

New Energy Sources in the View of Unitary Quantum Theory



particle
holds
energy

particle
gains
energy

particle
losses
energy

- *In conventional QM there are no conservation laws for individual processes with small energies.*
- *UQT allows that **in resonance** systems **the oscillating charges with excess energy** and the correct initial phase **can be grouped together**.*
- *In this way UQT offers the **possibility for energy accumulation** by **synchronized processes**.*

Einstein-Cartan-Evans theory



- The ECE theory can be described as a **Grand Unified Field Theory** covering General Relativity, Quantum Mechanics and Electromagnetism.
- **Electromagnetism** can be **derived** in this theory **from torting or twisting of space**
- The interacting of the G-field und EM-field is generating a **multitude of new effects** including **energy conversion from space-time.**

This „**Grand Unified Field Theory**“ (GUFT) and the „**Higher Symmetry Electrodynamics**“ can be used to develop systems for **electrical/magnetical resonance coupling with the vacuum.**

Field-Potential-Relations

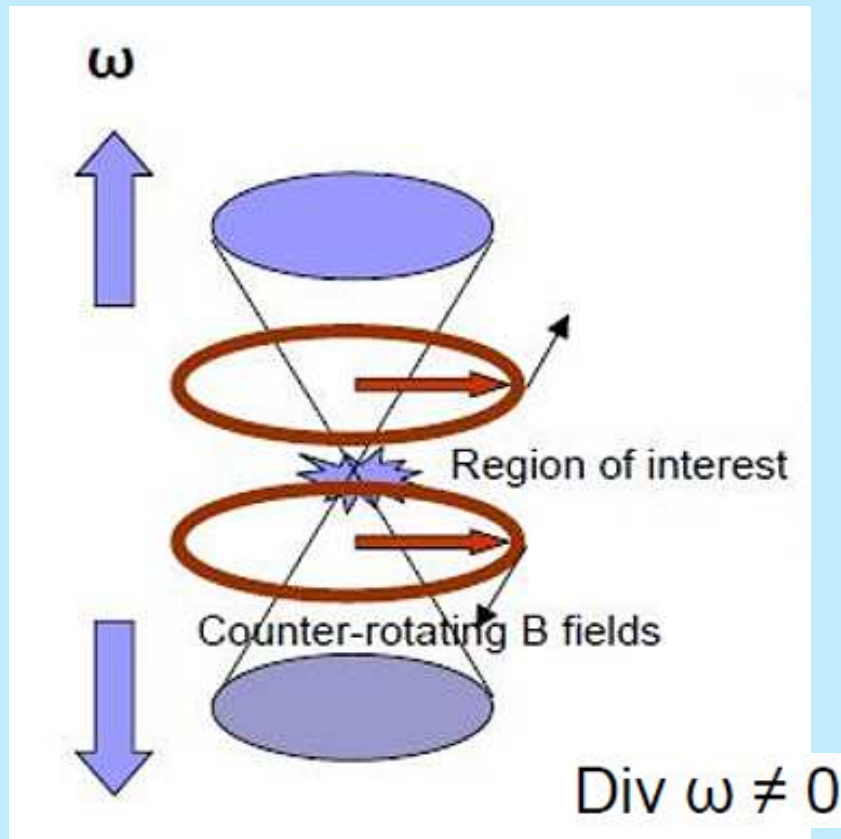
According to the Einstein-Cartan-Evans theory there are some extensions to the classical electrical and magnetic field of the Maxwell-Heaviside theory. **This additional terms combine a second potential component A^b with a spin component of frequency ω .**

This **spin component** couples the fields to a torsion component of space-time and **explains a lot of surprising phenomena**. It can generate special **resonance effects** and can decouple energy from space-time energy fields.

$$\mathbf{E}^a = -\frac{\partial \mathbf{A}^a}{\partial t} - c \nabla A^{0a} - c \omega^{0a}_b \mathbf{A}^b + c \omega^a_b A^{0b}$$

$$\mathbf{B}^a = \nabla \times \mathbf{A}^a - \omega^a_b \times \mathbf{A}^b$$

Spin Connection Resonance in Electrical Engineering



- **Transfer of energy from vacuum is possible**
- Rotating magnetic fields creates **vortices in space-time** which are enhanced by spacetime resonance and evoke a force field.
- Such a force field **creates torque** being big enough to spin the magnetic assembly and **to maintain the rotation**.
- <http://aias.us/documents/miscellaneous/Spaceenergy.pdf>

<http://aias.us/documents/miscellaneous/ECE-popular-en.pdf>

From Theory to Practical Experiments

The Reactionless Generator RLG

- Inspired by the description of space and matter in ancient Vedic texts, the **RLG** was invented by **Paramahamsa Tewari**, noted **Executive Director, Nuclear Power Corporation**, Department of Atomic Energy, India, and the **former Project Director of the Kaiga Atomic Power Project**.
- The RLG has been **successfully built and tested and duplicated** by a second party skilled in generator manufacturing.



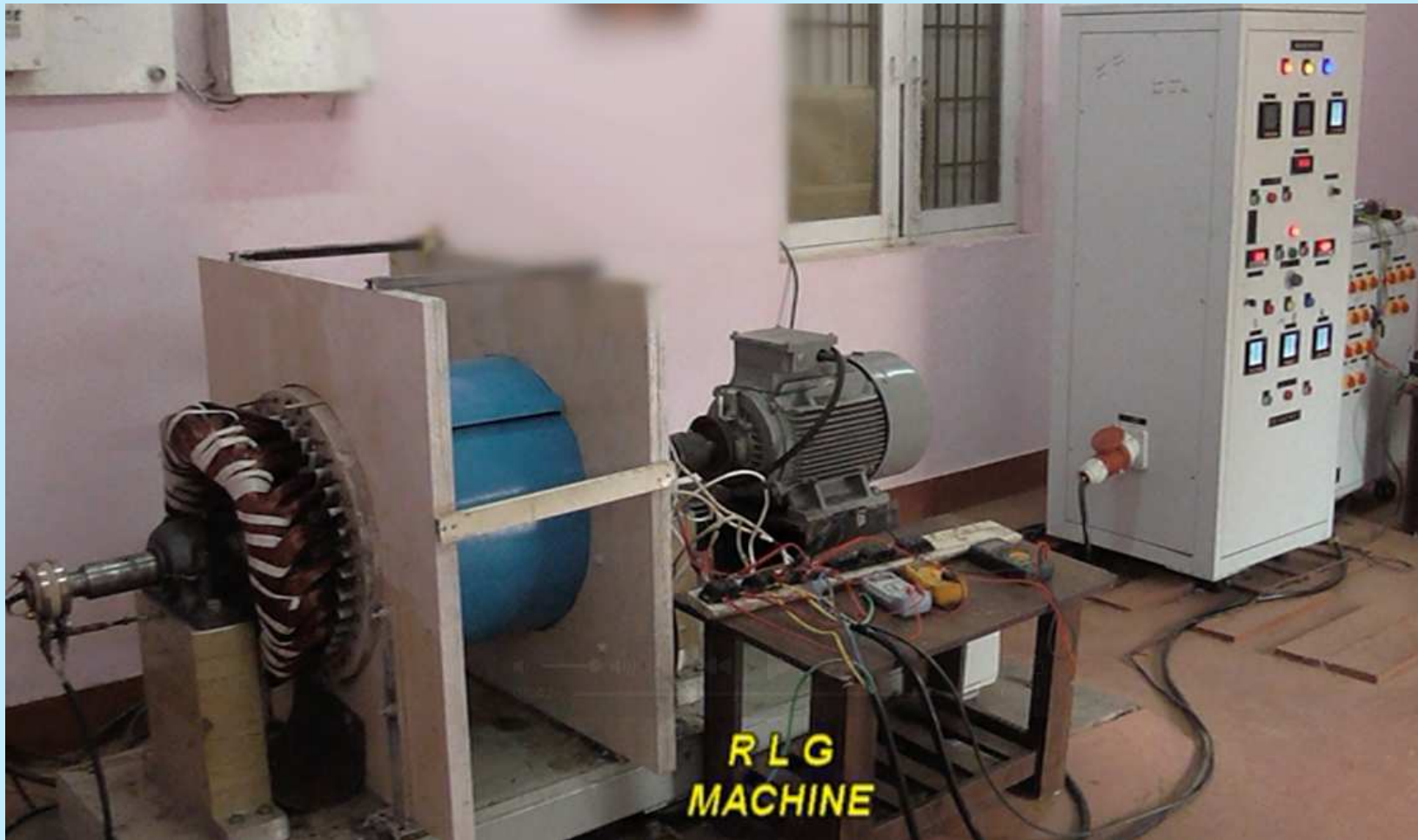
Paramahamsa Tewari (right) with RLG during testing in India with Toby Grotz (left)

Reactionless Generator of P. Tewari

- **In an RLG**, by a specific configuration of the armature conductor and the magnetic field, **a torque that supports rather than opposes the motor torque is created.**
- **This way** the armature reaction is nullified and **Lenz's law is bypassed.**
- **Explanation** of RLG phenomenon **comes from the principles of Space Vortex Theory** that explains the creation and stability of electrons. All these **from the absolute vacuum of space** (a massless, nonmaterial fluid).

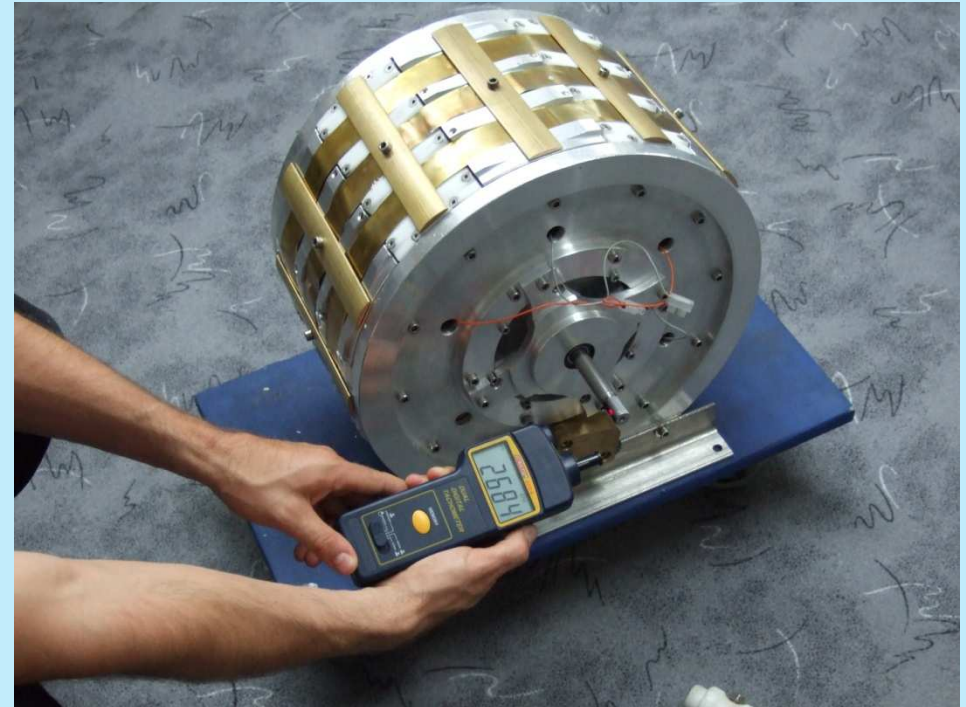


Reactionless Generator of P. Tewari



- Input to Drive Motor = 1.724 KW Output Generator = 4.461 KW
50 Hz, 3 Phase 220 VAC **Efficiency = 2.58** July 9th, 2016

Magnetic Motor of Muammer Yildiz



This full **Permanent Magnet Motor** was **demonstrated** on July 3, 2008, in a laboratory near Nuernberg/Germany, **for Adolf & Inge Schneider**, TransAltec Inc., together with a team of engineers. There exists also several videos from demonstrations in the Netherlands like:

<http://www.youtube.com/watch?v=el9krMCR-xk>

Magnetic Motor of Muammer Yildiz

According to the inventor and his partner they have already coupled the motor on the axle via a pulley to a generator and could load the system with **about 500 W** (lamps + drilling machine). The idle velocity of some 2'700 rpm was reduced under load to about 1'400 rpm.



- The **motor** contains a total number of **1980 permanent magnets** and has a total **weight of some 48 kg**.
- The outer **diameter is 50 cm**, the **axle length is 40 cm**.
- The **idle rpm** running is in the range of **2'700 rpm** (stabilized via counter torque created by a single short circuit wiring)
- Patent application **WO 2009/019001**.

Magnetic motor of Muammer Yildiz

- The running motor was demonstrated at the **Delft University of Technology** on April 20, 2010.
- A **video** of the demo is available at <http://www.youtube.com/watch?v=ml3227d5Css>



Partly opened motor with magnetic components



Dr. Jorge L. Duarte, Electromechanics and Power Electronics Department of Electrical Engineering Eindhoven University of Technology of the Netherlands

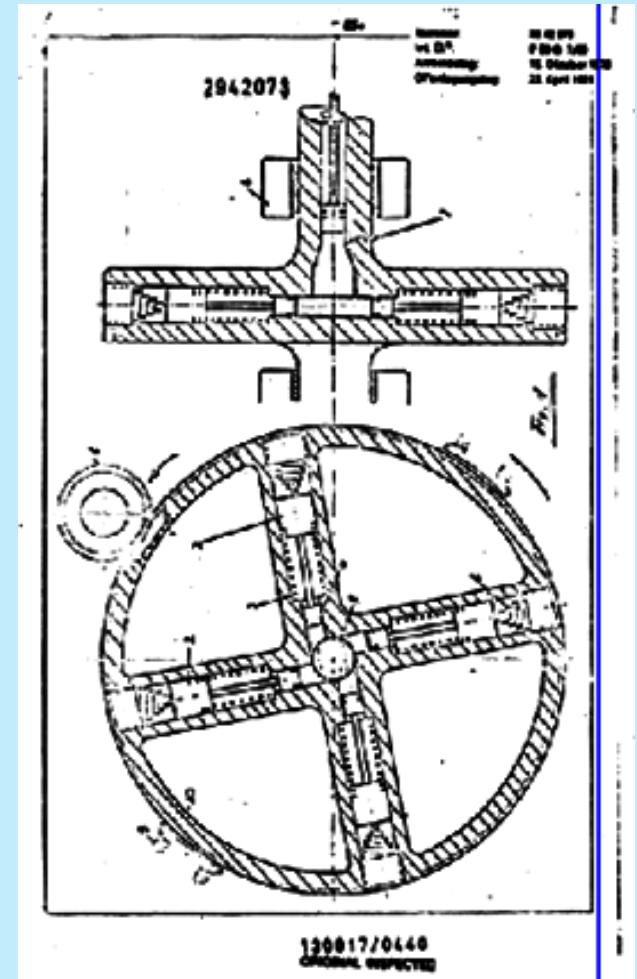
Yildiz Magnet Motor exposed at the International Exhibition of Inventions Palexpo, Hall 7, Geneva 2013

- The running motor was also demonstrated at the **41th International Exhibition of Inventions in Geneva, 2013**
- The inventor is interested to make contracts with investors.
- Additional research and optimization is needed in order to create a serial product.



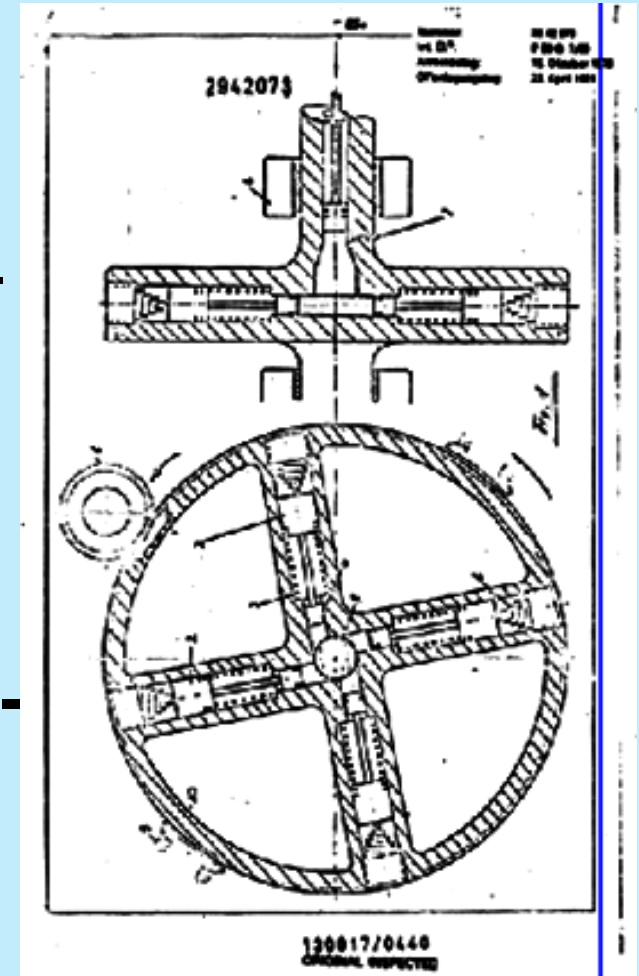
Parametrically Controlled Rotor System

- **Prof. Dipl.-Ing. Raul Popescu**, who taught theoretical mechanics on the University of Bukarest, **developed a concept for autonomous rotating systems by parametrically changing the moment of inertia via radially movable pistons.**
- **His concept of a «Resonanz-Pulsations-Drehmotor» is explained in the patent application DE2317724A1.**
- The motor delivers more energy out compared with the invested energy.
- **The energy balance is always observed**, because additional energy is feeded from the microlevel via thermal fields, quanta fields etc.



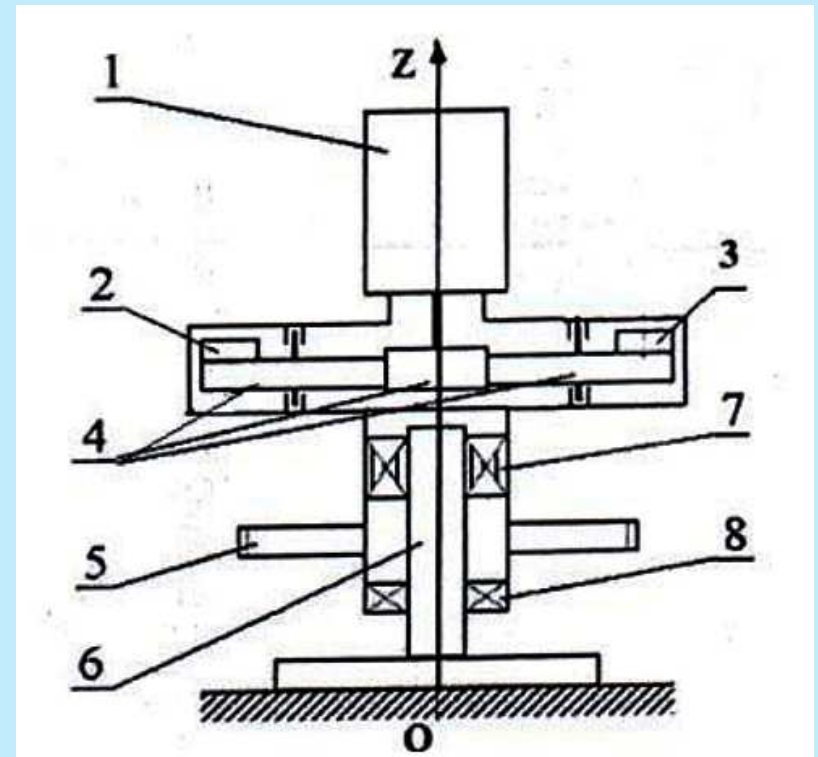
Autonomos Running Parametric Systems

- The stability of stationary oscillations or rotations can be mathematically described with the **Liapunov function**.
- This function has the remarkable property to reach a maximal or a minimal value for stable states.
- According to the «**Thermodynamics of isolated particles**» of physicist **Louis de Broglie** it can be shown that **the fluctuations of the mass of particels can be interpreted as a constant energy exchange with the subquanta milieu**.
- That means that **each material particle stays in constant contact with the heat reservoir** of the subquanta milieu.



Energy Conversion by Inertion Engines

- **A comparable invention** was made in Russia **by E.I. Linevich**, who developed a supportless inertial engine.
- The device contains a gyroscope, an electric motor with an unbalance with a possibility of the free line-imbic movements, and a control system.
- **The inertion engine** (or « inertor » **can be used** in the same time not only as a power supply **for different devices**, but also **as a source of energy of unlimited volume**.



- 1) The electric motor
- 2)+3) Disbalances
- 4) Gear wheels
- 5) A cog wheel
- 6) Motionless axis
- 7) Overrunning clutch

Energy Conversion by Inertion Engines

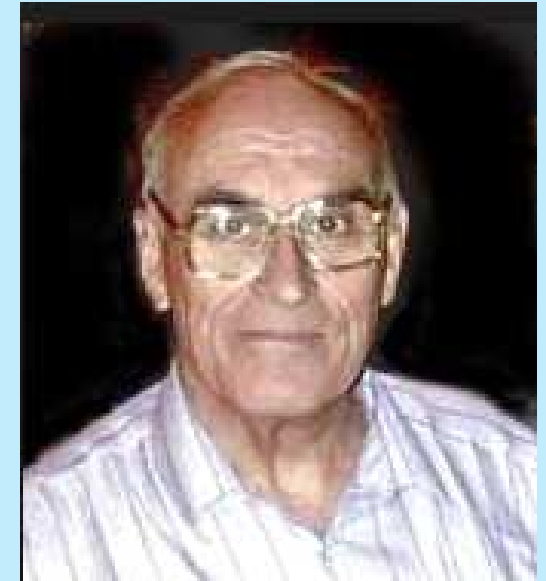
- It could be shown that the work on the moving of the inertor in space is done by space itself or even by the universal gravitation.
- Electromotor (left) with 0,5 kW drives via inertor the generator (right) with power of 6 kW.
- Results of measurements of **input power** and **output power** (Austria, January 2009).



No	U, Volt	I, Amper	Pinput, Watt	Poutput, Watt	Effect, %
1	19.10	18.00	344	6131	1782
2	19.30	20.00	386	6080	1575
3	19.60	22.00	431	6160	1429

Energy Conversion by Inertion Engines

- To understand inertion engines it is recommended to study **the work of Prof. Ph.M. Kanarev** from Krasnodar.
- **His new** concept of «**Mechanodynamics**» is a part of theoretical mechanics and explains the relationship of the material points and bodies.
- He formulated **seven laws** which allow to understand mechanical systems with efficiencies greater than unity.
- **His theory** of the behavior **of impulse power systems** makes it possible to calculate and **solve problems** which are **beyond** the strength of **Newton's dynamics**.
- It seems that **molecular and even nuclear fluctuations** of the material is **used for conversion** of additional energy **into macroscopic kinetic energy**.



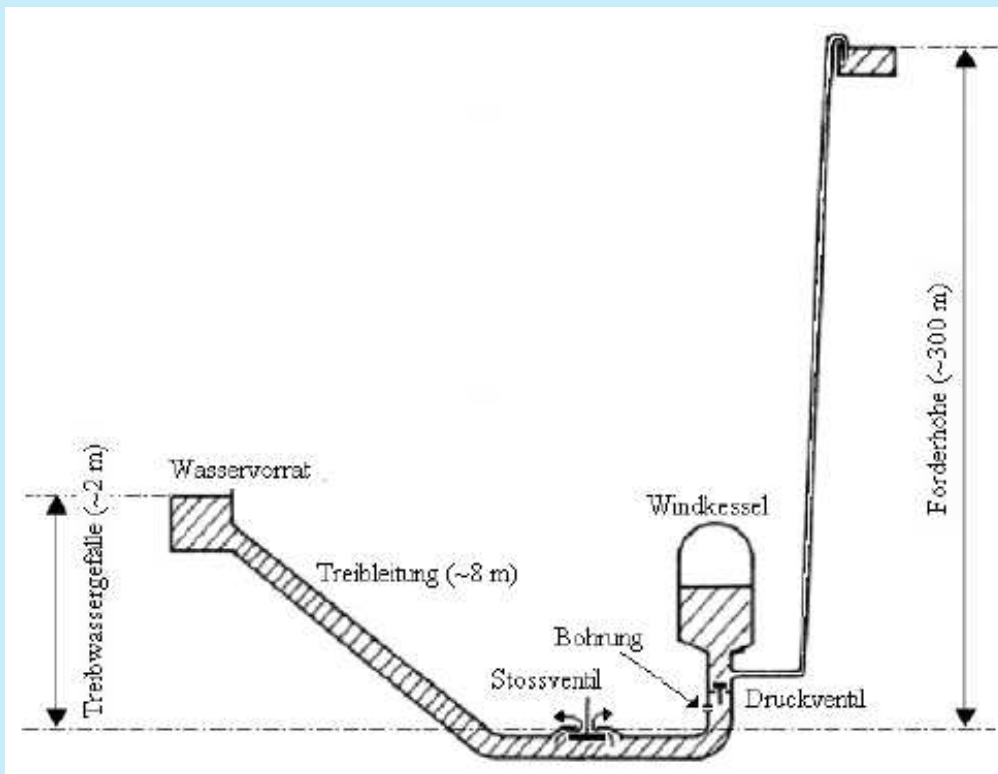
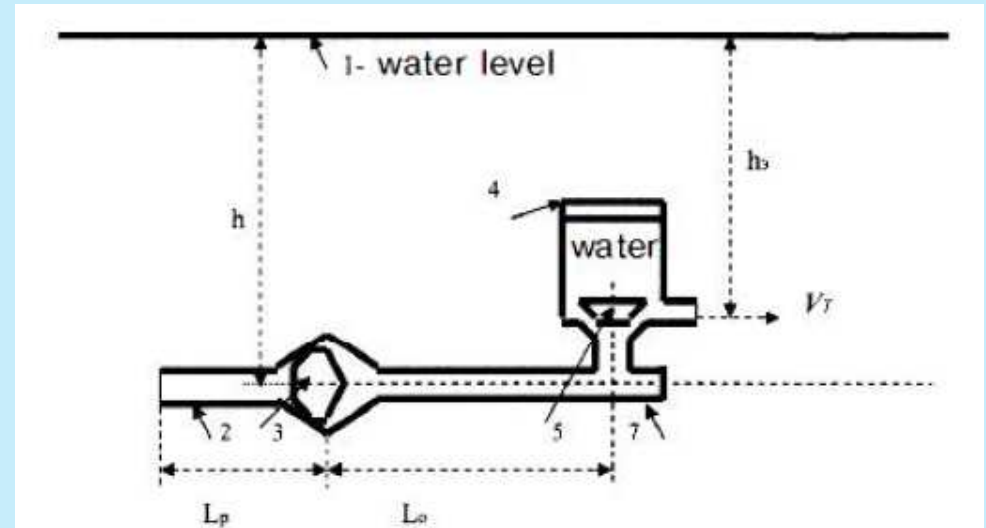
Energy via Hydraulic Oscillations

- **The russian inventors Dr. V.V. Marukhin and V. A. Koutienkov have developed a theory with 500 formula which allows the design of a new kind of ram pump with no water losses.**
- **The system works only autonomously when all geometrical and dynamic parameters are strictly controlled.**
- **The internal oscillating valve can be compared with the flutter valve in pulse jet engines. But in such engines we have an unidirectional gas flow while in the new undamped hydraulic-pneumatic design we have a bidirectional fluid oscillation.**
- **The fact that no waste water is produced enables that the up pumped water can be used to generate energy (via turbine and generator) and that the system can operate in a closed cycle.**



Comparison with classical Ram Pump

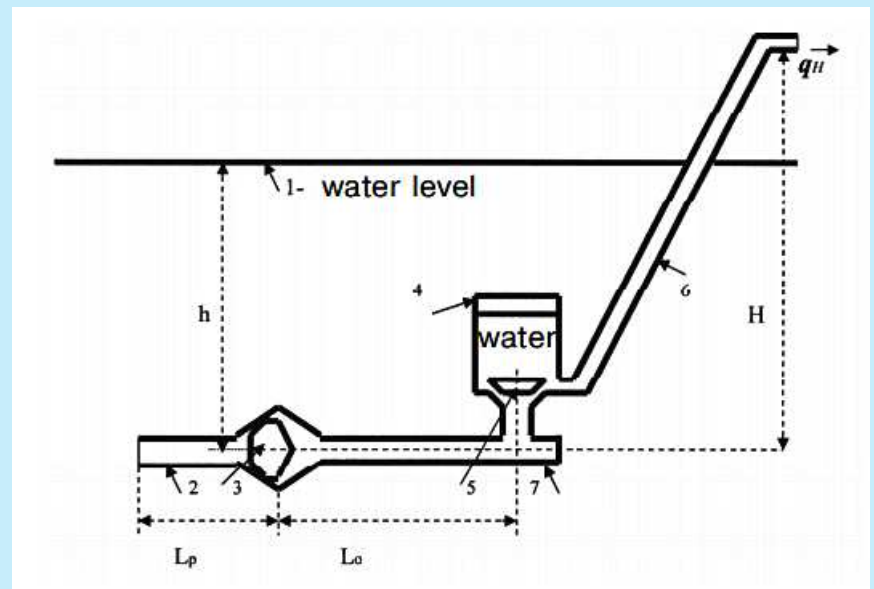
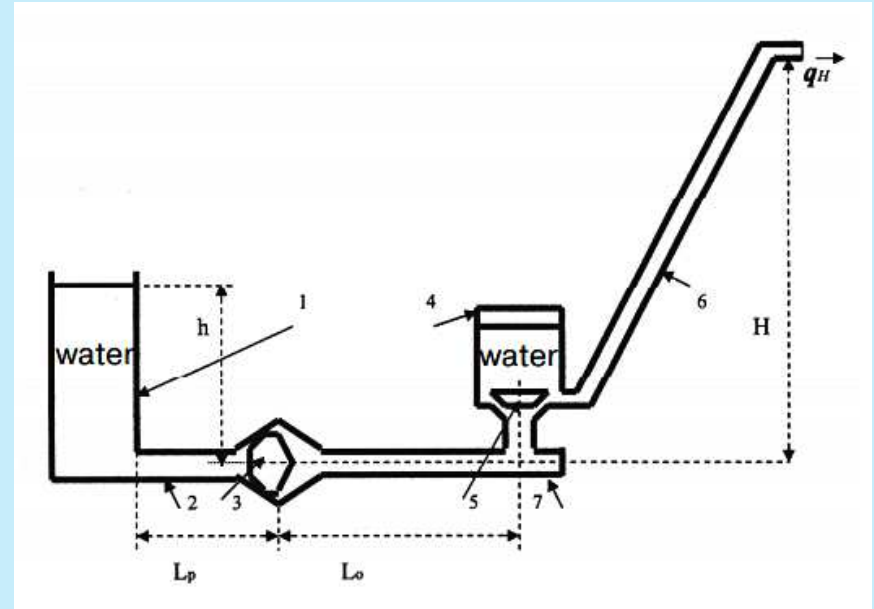
- In the classical design of a hydraulic ram pump there is an inherent water loss from the waste valve.
- **The waste water amount is normally tenfold to fifteen fold of the up pumped water.**



- **In the new Russian design we have only an internal oscillating valve between the high pressure and acceleration zone without any opening to the outside.**
- As in the conventional ram pump there is a delivery check valve at the entrance of the pressure vessel.

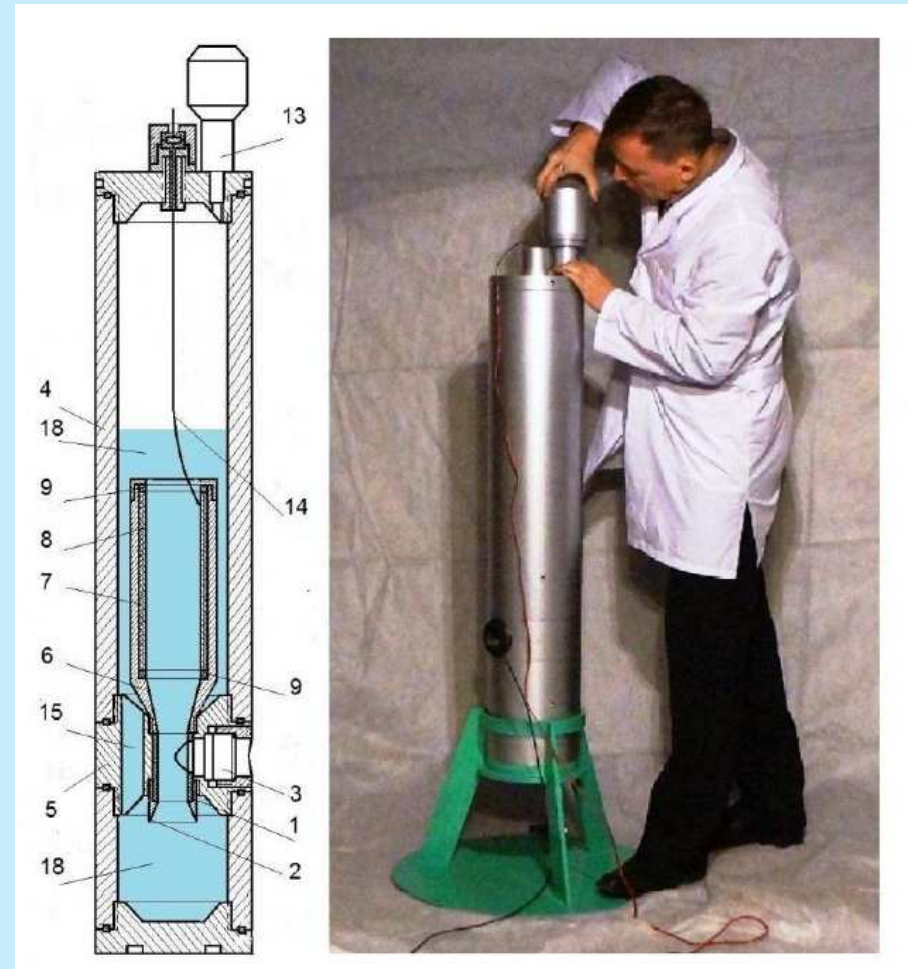
Undamped oscillating Ram Pump

- From theoretical calculations follows that the **maximal pressure is the double of the pressure in the inlet drive pipe.**
- Therefore the **maximal accessible height H** corresponds to **$2h$** which is the **double of the water reservoir height.**
- The system can also immersed into an open water reservoir.
- For autonomous operation it is required that the height (depth) is big enough to reach the start pressure.
- **When the required pressure is reached the system starts autonomously.**



Autonomously working Ram Pump

- In a further implementation of the **hydraulic oscillating generator** it was possible to **omit any mechanical check valve** and to incorporate the steel tubes of different diameter and length into a closed vessel.
- **Such systems operate under high pressure (2'000...4'000 bar) and with high repetition rates (3'000 Hz).**
- The **mechanical energy** of the vibrating hydraulic columns is **converted into electricity via piezo-electric ceramic material.**
- Custom designed «**Hydraulic Oscillating Generators**» generate up to **1 MW** in a steel cylinder of 80 cm height, 20 cm diameter **under operating pressure of 350 MPa with 3'000 cycles/second.**



Autonomously working ram pump

- **The theory of the «undamped fluid oscillator circuit» is published in several scientific journals.**
 - The fast pressure oscillations are not audible.
 - Their amplitudes are in the sub-mm range are.
 - The **vibration** process is adiabatic with no heat losses.
 - **The oscillations are started with a pressure «dirac puls» in a special shock-valve.**
 - Reference: scienceph.ru/d/413259/d/science_and_world_no_6_34_june_vol_i.pdf pp. 52-61.

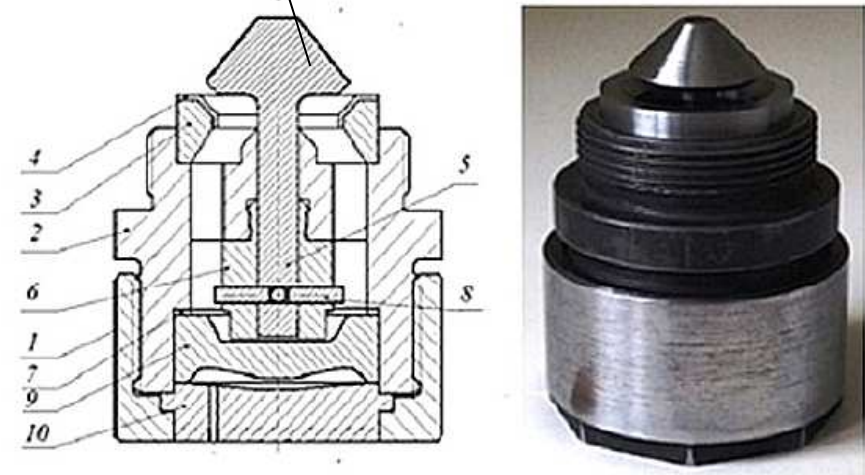
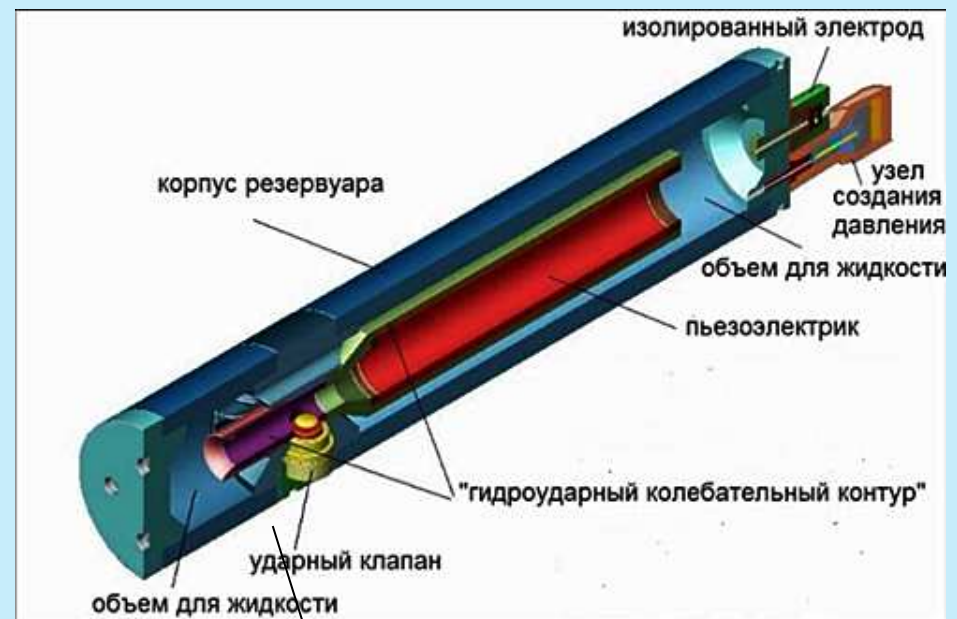


Рис.20. Конструктивная схема и внешний вид ударного клапана

Meeting with Dr. V.V. Marukhin and visit in the Russian Academy of Sciences in July 2016



Picture of Dr. V.V. Marukhin together with a business group in the Hotel Marriott Courtyard, Moskau, in July 2016.



V. Koutienkov explains in the laboratory of RAS the procedure to start the hydraulic cycles in the oscillatory plant.

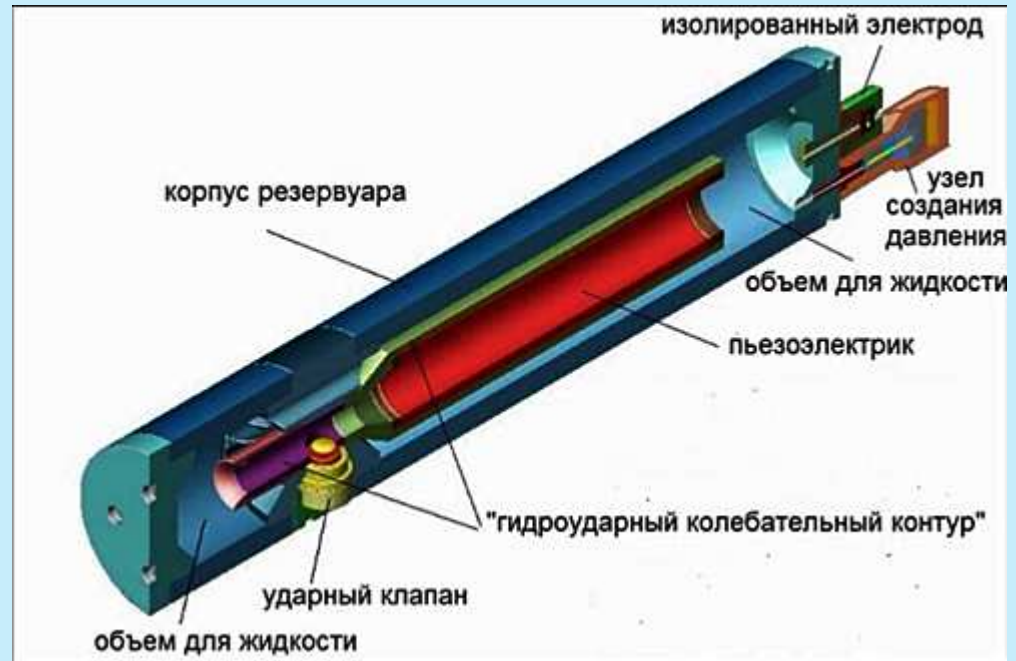
Components of a Hydraulic Oscillation Generator

- The components of a 1 MW plant are steel tubes, cylindrical parts and different valves.
- A piezoelectric ceramic tube converts the pressure oscillations into voltage oscillations.
- The high voltage square wave is rectified and inverted with IGBT transistors into low AC three phase voltage with 50 Hz or 60 Hz.



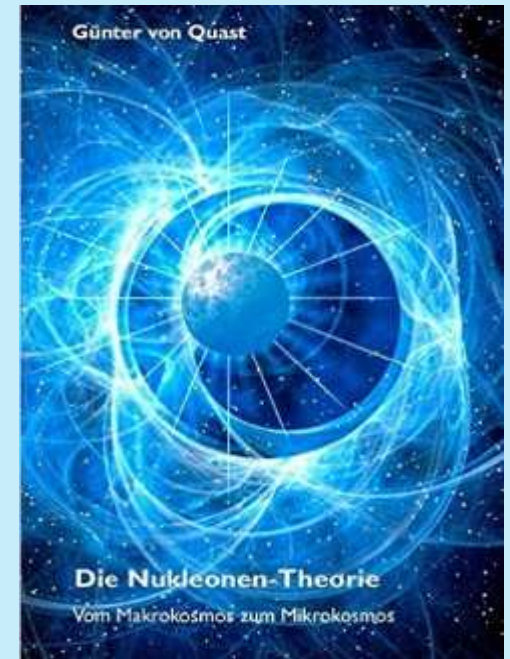
Production Licencies for this Tecnology

- On January 30, 2014, V. V. Marukhin got the European patent EA019159 (B1).
- The realizable power is in the range between 65 kW and 65 MW
- The maximal power depends from the size and internal pressure of the plants.
- V.V.Marukhin informed us that several dozens plants of different sizes and power are already licensed in Europa und in Russia The name and location of the companies which use his technology already in the industry cannot be given up for comprehensible reasons.
- We have options to the license in several european countries and are planning to buy a license in 2016 and start with the production of the first plants in 2017.



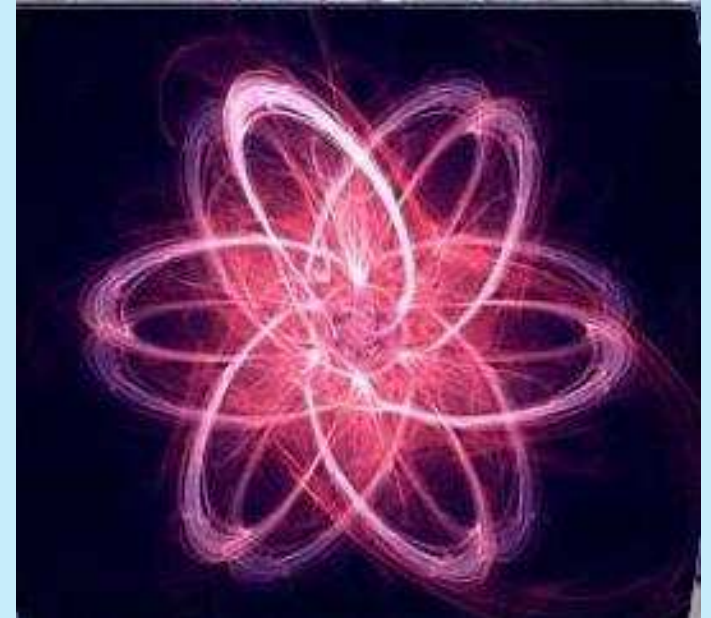
Future Aspects of Space Energy

- According to «The Nukleon Theory» of Guenter Quast, **all Atoms are communicating with the field of space energy if they are excited by pressure oscillations.**
- That means, **it is possible to convert space energy directly** from the surrounding space energy and sustain mechanical oscillations.
- **We have learned** from our discussions with V. V. Marukhin, **that responsible people in the governments are really aware, that such new kind of use of nuclear energy could trigger an energy revolution.**
- **In the long term it is evident that such revolution cannot be stopped and that such kind of energy is really needed.**
- **But in the medium run it is supposed that the big energy industry will focus their business furthermore to the classical energies,** because the contemporary industrial, financial and state oeconomy depends on the sales of the current energy market.



Conversion of Space Energy

- It can be summarized that in mainstream and alternative physics are new concepts which explain the continuous energy flow from and to the vacuum energy field.
- Space energy can be tapped and converted in conventional energy via dynamic resonant fields in linearly oscillating and rotary devices.
- Bestselling author and covered speaker, **Gerald Celente** stated some years ago: "**We need a productive capacity** - and the best way that we see it is **with alternative energy** – **not wind, solar, geothermal, biofuel** - **but something much bigger**".



Novel Energies

This **new power** for the driving of the world's machinery **will be derived from the** energy which operated the universe, the **cosmic energy**, whose central source for the earth is the sun and which is even **present in unlimited quantities.**

New York American, 1.11.1933

I have harnessed the cosmic rays and caused them to operate a motive device.

www.borderlands.de/Links/NovelEnergyTechnologies.pdf
www.borderlands.de/Links/WCEC031116.pdf



Nikola Tesla (1856-1943)

The Brooklyn Eagle,
July 10th, 1932,