The Fall and Rise of Resonance Science

Speaker: Juliana H. J. Mortenson, M.D.

Contact Information: General Resonance, LCC, One Resonance Way, Havre de Grace, MD, 21078, USA, Ph 410-939-2343, Fax 410-939-2817, Email JM@GeneralResonance.com

Websites: www.GeneralResonance.com and www.EinsteinsHiddenVariables.com

Abstract: Energy comes in many forms including thermal, chemical, electromagnetic (e.g., light), acoustic, electrical, magnetic, and mechanical. When a car burns gasoline, the chemical energy of the gasoline is transformed into mechanical energy which makes the car move. Likewise, when a cell phone receives a telephone call, the energy of the electromagnetic waves transmitted from a cell phone tower is converted by the cell phone electronics into sound waves. The idea that energy is neither created nor destroyed, but is instead transformed from one form into another is the basis for the first law of thermodynamics.

Due to recent fundamental discoveries in quantum physics, it is now known that there are two primary processes through which energy is transformed from one form into another. Those two energy transformation processes are 1) chaotic thermal processes; and 2) orderly resonance processes. The science and physics of the 19th and 20th centuries focused almost exclusively on thermal processes, and the field of thermodynamics saw significant development in both research and practical applications over the last 100 years. The focused development of resonance dynamics is a relative late comer to many areas of science and technology however, and practical applications are just now being explored at the dawn of the 21st century.

Comparisons between thermodynamics and resonance dynamics have demonstrated that resonant energy transformations can be several orders of magnitude more efficient than thermal transformation, requiring only fractions of input energies to produce the same results at huge energy savings. Given the potential of resonance processes to provide these huge energy savings, one naturally wonders why development of resonance dynamics has lagged behind development of thermal energy processes.

The reasons for the delays in the development of resonance dynamics – by far the more powerful of the two energy transformation processes – involve numerous historical, cultural, religious, sociological, mathematical, and scientific factors. Two thousand years ago, the development of resonance understandings were taking root in various religious traditions. Those beliefs were later banned by the Roman Christian church as pagan and heretical. Scientific inquiry was simply not allowed. By the mid-19th century, investigations into resonance phenomena were beginning to take root again, however in an odd twist of fate, the laboratory experiments that first gave rise to quantum physics were exclusively thermodynamic in nature. Resonant energies had been deliberately excluded from the experimental apparatus in order to determine a certain thermodynamic equation. This once again left resonance dynamics out in the cold. The early quantum scientists understood that somehow, resonance dynamics needed to be included in quantum mechanics, but ran into significant mathematical roadblocks. They were unable to agree on a solution to this "*resonance catastrophe*" and eventually ended up leaving resonance dynamics out of quantum physics for the most part.

Recently, new mathematical tools have been developed for this burgeoning field of resonance dynamics, and the development of energy efficient technologies and applications is once again back on track. And therein lies the story of the fall and rise of resonance science.