

# Music and Memory: research and applications in Therapy

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#### **Abstract:**

Keywords: Memory, science of music, dynamic systems, fractals, quantum transmission of the musical information, stochastic resonance, Music and Memory.

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Empirically, the role of Music in the mechanics of Memory was known since the dawn of mankind. Recent research shown the validity of these ideas; the physiological and psychological aspects of Music were studied and the results applied in various degrees by music-based therapies; the results are encouraging.

This presentation aims to introduce the issue to scientists in order to elicit further research and application in therapy. Applications in early detection and cure of Alzheimer, ADD, learning and developmental disturbs will be presented.

#### Outline:

- 1. Music: definitions
- 2. Musical Information: structure of the musical information
- 3. Neuroscience of Music: an introduction
- 4. Memory: definitions
- 5. Models of memory
- 6. Neuroscience of Memory: Basic Notions



- 7. Music: dynamic systems, fractals, superposition; quantum transmission of the musical information.
- 8. Stochastic resonance, Music and Memory.

### Biography:

- Since 1978, Dr. Graur has implemented the Music Integrative Neurotherapy<sup>TM</sup>, an applied Neuroscience method combining Music, Psychiatry, Molecular Biology and Quantum Mechanics.
- Former Editor-in-Chief, Journal of Biomusical Engineering (OMICS Group, Medical Sciences Journals).
- A professional member of the New York Academy of Sciences.

## **Recent Publications:**

1. Dr. Alexandru Jon Graur, Journal of science tech international, 2020

Webinar on Brain Stimulation | June 22, 2020 | Zurich, Switzerland

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