

Masterclass Fractal Geometry (MFG)

Content

1. Julius Ruis Set
 - Starting with Julia Sets and Mandelbrot Set
 - Between zero and infinity
 - With orbits (Julius Set) and without orbits (Julius Ruis Set)
 - Core competence (one core / dual cores)
 - Attractors / strange attractors
 - Edge of Chaos
2. Mathematical formulas
 - Polynomials
 - Transcendental functions
 - Inverted functions
3. BBM8.exe
 - Written in Power Basic
 - Some phenomena still to be searched (e.g.. disappearing of orbits)
 - Relation with Awareness Governance Model (in Dutch: Bewustzijns Besturings Model, BBM)
 - Questionnaires BBM and model of Dynamic Transfer
 - Integrated Images of Basic, Business and Global Awareness
4. Fractal Imaginator (Fi)
 - Source code in possession of Terry Gintz
 - Fi is for sale on internet
 - Trial version can be downloaded for free
 - File-extension is .fim data-file, together with the filing of fractal images as .bmp and .jpg files
 - 3D fractal images as .obj and .stl files
 - Viewing with 3D explorer
5. Fractal Science and Art Gallery
 - Several images on internet with .fim files
6. Patent Application
 - Using Fractal Geometry for design and manufacturing of Artificial Human Organs (e.g. Blood Vessels)
 - Rapid Prototyping (biodegradable scaffolds)
 - Tissue Engineering (direct writing of cells)
 - 3D examples (Amitek en TNO)
 - 186 persons consulted (without success)
7. Fractalary: Fractals from Planet to Atoms
 - Fractal Design Cycle
8. Fractal Human Organs
 - Comparising of real images with fractal images
9. Fractal DNA, RNA and Proteins

- Fractal Approach of the Genome (Andras Pellionisz)
 - International PostGenetics Society (IPGS)
 - Article of Pellionisz with reference to Julius Ruis Set
 - Function on membranes (Fractal Evolution)
10. Self-assembly of Atoms and Molecules
- Scientific publications
11. Particles and Unparticles
- Elements as Particle and Wave (quantum mechanics)
 - Scale-invariance of Unparticles
12. Bio-nano-robotics
- High Tech Systems
13. Complex Adaptive and Emergent Systems
- Book of Van Zanten
 - Strength of TU/e and region Benelux Middengebied
 - Article of Jules Ruis about Fractal Systems
 - ViC CAES (in Dutch): [www](http://www.vic-caes.nl).
 - Partnerships (IHGS, ICMS, VP, MAD)
14. Fractal Earth
- Food on Demand
 - Sustainable Development
15. Fractal Space
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16. Fractal Time
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17. Fractal Relationship/Connectivity
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18. Universal Fractal Awareness
- In Dutch: www.fractal.org/Fractaal-bewustzijn.pdf

Appendices

- A. Publications
- B. Internet links
- C. Search Engine

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