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Informational Self Organization in Isotopically Random Soft Structures ALEXANDER A. BEREZIN, McMaster University — Stable isotopicity can potentially account for self organization and informational proliferation in soft matrices, gels and even fluids. This can be a key to explain seeming "impossibility" of such claims as memory effects in water. Within isotopicity paradigm (A.A.Berezin, Isotopic diversity in natural and engineering design, In: Design and Nature, WIT Press, 2004, 411- 419) pattern enhancement upon successive dilutions can be attributed to "avalanche" cascade formation of informationally rich and numerically redundant "Arnold tongues" akin to strange attractors. Furthermore, even biological and medical "phenomenology" which we currently put under umbrella term "immune systems" can be operationally interpreted through quantum computer informational processing in isotopic neural networks using diversity of nuclear spins of different isotopes. Under action of informational attractor (analogy with Aristotelian causa finalis) "decay" process of patterns can be slower than build up of informational redundancy (morphic resonance). The latter can be envisioned as a kind of informational "Huygens principle" in which formation of global (wave) front (here: informational front) results from superposition of virtual sources at previous stage of cascade process. Nonlocal aspects of isotopic quantum computing can potentially provide connector to infinititude (perhaps even Cantor uncountable) library of patterns and serve as yet another bridge between physics and biology.

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