Contents

| About | the Author —— V |
|--------|---|
| Prefac | e —— VII |
| Forewo | ord: Isotopicity – paradigm for twenty-first-century —— XIII |
| Synop | sis — XVII |
| 1 | Introduction: Ideas and experts —— 1 |
| 1.1 | Informatics runs supreme —— 4 |
| 1.2 | Smartness of nature —— 5 |
| 1.3 | Making sense of the world —— 6 |
| 1.4 | In the shadows of infinity —— 6 |
| 1.5 | Mainstream and "fringe" science —— 8 |
| 1.6 | Peer review and suppression of new ideas —— 14 |
| 1.7 | Myth of "experts" —— 15 |
| 1.8 | "Experts" versus "rebels" —— 17 |
| 1.9 | Winner-take-all society —— 18 |
| 1.10 | Physics and cultural studies: Alan Sokal fails to convince me —— 19 |
| 1.11 | Prime numbers and isotopes: digital relatives —— 20 |
| 1.12 | Isotopicity meme —— 22 |
| | Chapter summary —— 23 |
| 2 | Quantum metaphysics —— 25 |
| 2.1 | Quantum roller coaster of a nonorthodox physicist —— 25 |
| 2.2 | Holomovement of David Bohm —— 35 |
| 2.3 | Quantum consciousness by Roger Penrose —— 36 |
| 2.4 | Parallel universes and quantum computing —— 37 |
| 2.5 | My Einstein number is four —— 37 |
| | Chapter summary —— 39 |
| 3 | Integers and primes —— 41 |
| 3.1 | Infinity over infinity —— 41 |
| 3.2 | Prime of primes —— 43 |
| 3.3 | Twin primes and prime deserts —— 48 |
| 3.4 | Prime gaps and superfactorials —— 51 |
| 3.5 | Twin primes: Eternal lovers —— 52 |
| 3.6 | Tower exponential meditations —— 53 |
| | Chapter summary —— 59 |
| 4 | Primology awe —— 61 |
| 4.1 | Quantum nonlocalities and prime numbers —— 61 |



| 4.2 | Isotopic prime number curiosities —— 62 |
|------|---|
| 4.3 | Numbers and love (Paul Erdos) —— 63 |
| 4.4 | Numerology and prime number legends and fancies —— 65 |
| 4.5 | Prime number messages to cosmos —— 67 |
| 4.6 | Prime numbers and safe communications —— 67 |
| 4.7 | Prime numbers in biology —— 69 |
| 4.8 | Prime numbers and mobius strip —— 70 |
| 4.9 | Cantor's set theory and prime numbers — 75 |
| | Chapter summary —— 75 |
| 5 | Platonic emergence —— 77 |
| 5.1 | Cantor, Gödel, and "ultimate issues" —— 77 |
| 5.2 | Platonic pressure effect —— 80 |
| 5.3 | It from bit and the Leibnitz principle —— 83 |
| 5.4 | Emergence, cosmogenesis, and algorithmic compressibility —— 86 |
| 5.5 | Pythagoras and Plato —— 88 |
| 5.6 | Nature's desire for patterns —— 90 |
| 5.7 | Absoluteness of numbers —— 92 |
| 5.8 | The plurality of world's thesis (David Lewis) —— 93 |
| 5.9 | Infinite sets and anthropic principle —— 95 |
| 5.10 | Atoms and isotopes in our life —— 95 |
| | Chapter summary —— 98 |
| 6 | Time labyrinths and melting watches —— 99 |
| 6.1 | Time and eternity —— 99 |
| 6.2 | Time: Reality versus illusion —— 100 |
| 6.3 | Infinity and time —— 101 |
| 6.4 | Certainty of infinity in mathematics (Platonic infinity) —— 105 |
| 6.5 | The trouble with certainties and infinities in physics —— 106 |
| 6.6 | Frozen time of Platonia —— 107 |
| 6.7 | Frozen time in fine art —— 108 |
| 6.8 | Time-zero problem —— 109 |
| 6.9 | Elementary time units: time at the quantum foam level —— 110 |
| 6.10 | Inflationary cosmology and megaverse —— 111 |
| 6.11 | Literary precursors of inflationary cosmology —— 114 |
| 6.12 | Pantemporalism —— 115 |
| 6.13 | Multidimensional time and time loops —— 115 |
| | Chapter summary —— 119 |
| 7 | Consciousness unlimited —— 121 |
| 7.1 | Consciousness: Door to infinity —— 121 |
| 7.2 | Localized versus distributed consciousness —— 123 |

| 7.3 | Panpsychistic traditions from antiquity to "new age" —— 126 |
|------|--|
| 7.4 | Global and cosmic consciousness —— 128 |
| 7.5 | Dual dynamics of consciousness emergence —— 131 |
| 7.6 | Dichotomy of individuality and oneness —— 133 |
| 7.7 | Universal consciousness in infinite and eternal multiverse — 133 |
| 7.8 | Occam's razor principle revisited and inverted — 136 |
| 7.9 | Quantum consciousness and paranormal claims —— 138 |
| 7.10 | Consciousness and physical measurements —— 141 |
| 7.11 | Conscious sun and the "dark matter" puzzle — 146 |
| 7.12 | Miracle of light in physics and metaphysics — 148 |
| 7.13 | Consciousness in the context of ultimate reality —— 149 |
| | Summarizing on consciousness —— 150 |
| 8 | Why π is not exactly 3 —— 153 |
| 8.1 | Miracle of π and more on prime numbers —— 153 |
| 8.2 | Super-long prime numbers and self-organization —— 155 |
| 8.3 | Emergence, eternal records and normal numbers —— 156 |
| 8.4 | Message of " π " —— 158 |
| 8.5 | The library of Babel by Jorge Luis Borges —— 160 |
| 8.6 | Prime numbers in the library of Babel —— 162 |
| 8.7 | Lev Tolstoy in Borges library —— 165 |
| 8.8 | Diophantine equations and eternal records —— 167 |
| | Chapter summary —— 169 |
| 9 | Quantum Narnia and parallel universes —— 171 |
| 9.1 | Universe at tower exponential scales —— 171 |
| 9.2 | Quantum cats and Maxwell demons —— 174 |
| 9.3 | Common-sense nonlocality: magnetism —— 175 |
| 9.4 | We are quantum waves —— 176 |
| 9.5 | Multiverse and living cosmos —— 178 |
| 9.6 | We are eternal —— 178 |
| 9.7 | Are "same" particles "same"? —— 179 |
| 9.8 | Quantum statistics and isotopic individuality —— 181 |
| 9.9 | Maxwell demon plays with isotopes —— 182 |
| 9.10 | Beyond the threshold —— 184 |
| 9.11 | Isotopicity and quasi-stationary states —— 186 |
| | Chapter summary —— 188 |
| 10 | All is water —— 189 |
| 10.1 | Planetary water resources —— 189 |
| 10.2 | Water as a "strange attractor" and Laplace Demon —— 190 |
| 10.3 | Quasi-psychology of water —— 191 |

XXIV — Contents

| 10.4 | Allure of running water —— 192 |
|-------|---|
| 10.5 | Water as gravitational equalizer —— 193 |
| 10.6 | Isotopes and water memory —— 193 |
| 10.7 | Benveniste "homeopathy" SAGA —— 195 |
| 10.8 | Isotopic ordering in liquids and "soft structures" —— 197 |
| 10.9 | Isotopic engineering —— 203 |
| 10.10 | Isotopic tribology —— 210 |
| 10.11 | Isotopic neural networks and "healing crystals" —— 213 |
| 10.12 | Isotopicity and Salvador Dali —— 216 |
| | Chapter summary —— 223 |
| 11 | Infinity reloaded —— 225 |
| 11.1 | We all live in other galaxies: Cosmic scales of nuclear wave |
| | functions —— 225 |
| 11.2 | Quantum paths to infinity —— 228 |
| 11.3 | Virtual realities and quantum computing —— 229 |
| 11.4 | Numerology and platonic reality —— 230 |
| 11.5 | The ultimacy of experience in a context of eternal meaning —— 231 |
| 11.6 | Euclidean embedding —— 233 |
| 11.7 | Isotopic randomness and omega number —— 234 |
| 11.8 | Cantor sets and eternal return paradox —— 235 |
| 11.9 | Logarithmic spiral: Path of infinity —— 237 |
| 11.10 | Living in the matrix – Physics reloaded —— 238 |
| | Chapter summary —— 245 |
| 12 | Neutronicity: A twin paradigm to isotopicity —— 247 |
| 12.1 | Centrality of informatics —— 247 |
| 12.2 | Creativity of nature —— 248 |
| 12.3 | Making sense of the world —— 249 |
| 12.4 | Periodical table and isotopes —— 250 |
| 12.5 | From isotopicity to neutronicity —— 251 |
| 12.6 | Neutron: Some prime facts —— 252 |
| 12.7 | Neutrons and negentropy —— 253 |
| 12.8 | Neutron and H atom: Generic relatives —— 254 |
| 12.9 | Neutron as a basis for the digital universal coding —— 255 |
| 12.10 | Neutron as a "particle of creation" —— 257 |
| 12.11 | Antineutriono: A universal cosmic messenger —— 258 |
| 12.12 | Neutron stars and black holes —— 259 |
| 12.13 | Neutrons and origin of oil —— 260 |
| 12.14 | Neutron: A real "God particle"? —— 261 |
| 12.15 | Neutron – Three in one (Neutron and holy trinity) —— 262 |
| | Summary on neutron and "neutronicity" —— 264 |

| 13 | Cosmic horizons —— 267 |
|--------|---|
| 13.1 | Ideas on life and consciousness —— 267 |
| 13.2 | Akashic record and morphogenetic field: Further explorations —— 268 |
| 14 | Epilogue —— 269 |
| 15 | Message to the young reader —— 273 |
| Refere | ences —— 279 |
| Index | 295 |