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Nota di contenuto	Preface -- 1. Higher-dimensional physics. 1.1. Introduction. 1.2. Dimensions then and now. 1.3. Higher-dimensional theories. 1.4. Field equations in N[symbol]4 dimensions. 1.5. A primer on Campbell's theorem. 1.6. Conclusion -- 2. The big bang revisited. 2.1. Introduction. 2.2. Flat 5D universes. 2.3. The singularity as a shock wave. 2.4. A bounce instead of a bang. 2.5. The universe as a 5D black hole. 2.6. Conclusion -- 3. Paths in hyperspace. 3.1. Introduction. 3.2. Dynamics in spacetime. 3.3. Fifth force from fifth dimension. 3.4. Null paths and two times. 3.5. The equivalence principle as a symmetry. 3.6. Particle masses and vacua. 3.7. Conclusion -- 4. Quantum consequences. 4.1. Introduction. 4.2. 4D uncertainty from 5D determinism. 4.3. Is mass quantized? 4.4. The Klein-Gordon and Dirac equations. 4.5. Gauges and spins. 4.6. Particles and waves: a rapprochement. 4.7. Conclusion -- 5. The cosmological "constant" and vacuum. 5.1. Introduction. 5.2. The 5D cosmological "constant" 5.3. Astrophysical consequences. 5.4. Vacuum instability. 5.5. Mach's principle anew. 5.6. Conclusion -- 6. Embeddings in N[symbol]5

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