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Autore	Matsui Masayuki
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Nota di contenuto	Ch1 Introductory 3M&I-Body Problem -- 1.1 IE/OR vs. Wiener's cybernetics views -- 1.2 New challenge: Nature vs. artifacts issues -- Ch2 Fundamentals of 3M&I-Body System -- 2.1 Algebra: Pair-matrix body and line vs. OE -- 2.2 Analytics: Sandwich theory and Matsui's equation -- 2.3 Control: Progressive method and 3D-geometry -- Ch3 Science/Balancing of Multi-Body System -- 3.1 Dual Job Shop vs. Line system and Balancing -- 3.2 Bowl balancing and arrangement of bodies -- Ch4 Economics of Invisible Collaboration -- 4.1 Medium/invisible collaboration of bodies -- 4.2 Ellipse map and SCM/GDP collaboration

-- Appendix A1 Newtonian Mechnics vs. Matsui’s Dynamics -- A2 Historical Review of 3M&I-Body Science -- Index.

Sommario/riassunto

This is the first book covering original information on the mathematical science of such the artifacts as 3M&I-body system, in which “3M” means human, material/machine, money, and “I” means the information/method in nature versus artifacts. This book is the product of industrial engineering versus Wiener’s cybernetics challenge for a half-century. For 3M&I-body, there are two approaches of artificial intelligence/IoT (internet of things) and Matsui's matrix/3D to systemization and control. The former is the analogical and visual approach to real entity. The latter is the digital and logical approach to system decision and is applied to the robotics of bodies. The mathematical science of a body is well constructed from the algebra, geometry, analysis, and control on Matsui’s equation, toward the sandwich and balancing propositions of bodies. The sandwich issues propose the squeeze or pinching theorem in mathematics at the 3M&I-body, and the balancing issues propose the principle of balancing and invisible collaboration of bodies, beginning from the work of Archimedes. This book contributes to the integration of knowledge and intelligence in science and facilitate the realization of the cyber/real-world , such as the enterprise robot, cloud-coordinated supply-chain management (SCM), and smart cities in the near future.