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Sommario/riassunto	Coordinate measuring machines (CMMs) have been conventionally used in industry for 3-dimensional and form-error measurements of macro parts for many years. Ever since the first CMM, developed by Ferranti Co. in the late 1950s, they have been regarded as versatile measuring equipment, yet many CMMs on the market still have inherent systematic errors due to the violation of the Abbe Principle in its design. Current CMMs are only suitable for part tolerance above 10 m. With the rapid advent of ultraprecision technology, multi-axis machining, and micro/nanotechnology over the past twenty years, new types of ultraprecision and micro/nao-CMMs are urgently needed in all aspects of society. This Special Issue accepted papers revealing novel designs and applications of CMMs, including structures, probes, miniaturization, measuring paths, accuracy enhancement, error compensation, etc. Detailed design principles in sciences, and technological applications in high-tech industries, were required for submission.