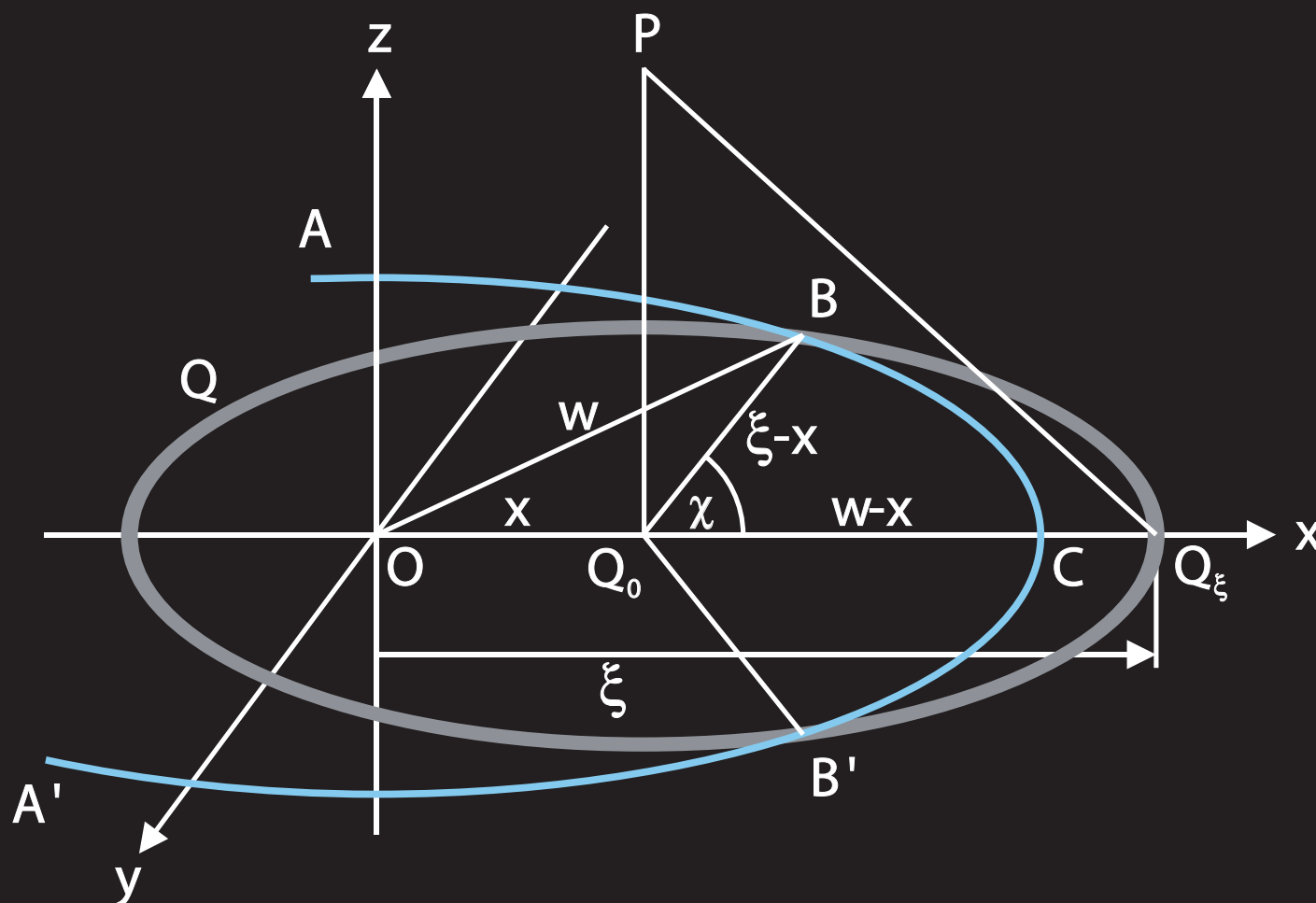


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- Magnetic Technology¹

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- Information Services and Computing
- Software Diagnostics and Conformance Testing
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¹At Boulder, CO 80303.

²Some elements at Boulder, CO.

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Cover: The cover figure depicts the basic geometry used for computations of optical diffraction in the immediate vicinity of a circular aperture (see paper on p. 355). These computations were based on the new mathematical expressions presented in the paper and are used to evaluate the impact of diffraction effects on infrared measurements performed by the NIST Optical Technology Division. Cover art arranged by C. Carey.

The *Journal of Research of the National Institute of Standards and Technology*, the flagship periodic publication of the national metrology institute of the United States, features advances in metrology and related fields of physical science, engineering, applied mathematics, statistics, biotechnology, and information technology that reflect the scientific and technical programs of the Institute. The *Journal* publishes papers on instrumentation for making accurate measurements, mathematical models of physical phenomena, including computational models, critical data, calibration techniques, well-characterized reference materials, and quality assurance programs that report the results of current NIST work in these areas. Occasionally, a Special Issue of the *Journal* is devoted to papers on a single topic. Also appearing on occasion are review articles and reports on conferences and workshops sponsored in whole or in part by NIST.

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