Nano-optics is the study of optical phenomena and techniques on the nanometer scale, that is, near or beyond the diffraction limit of light. It is an emerging field of study, motivated by the rapid advance of nanoscience and nanotechnology which require adequate tools and strategies for fabrication, manipulation and characterization at this scale.

In *Principles of Nano-Optics* the authors provide a comprehensive overview of the theoretical and experimental concepts necessary to understand and work in nano-optics. With a very broad perspective, they cover optical phenomena relevant to the nanoscale across diverse areas ranging from quantum optics to biophysics, introducing and extensively describing all of the significant methods.

This is the first textbook specifically on nano-optics. Written for graduate students who want to enter the field, it includes problem sets to reinforce and extend the discussion. It is also a valuable reference for researchers and course teachers.

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To our families
*(Jessica, Leonore, Jakob, David, Nadja, Jan)*

And our parents
*(Annemarie, Werner, Miloslav, Vera)*

... it was almost worth the climb
*(B. B. Goldberg)*
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