

Part I

Basic Concepts

The first part of this book introduces the principal ideas of the field. After providing the motivation, some history, and an overview of modern approaches in Chap. 1, we discuss in some detail the concepts of polarized light and polarized electrons in Chaps. 2 and 3, respectively. A number of experimental approaches, often with some representative results, are discussed in Chap. 4. This is followed by a summary of the systematic general theoretical description of such experiments using the method of density matrices in Chap. 5 and an overview of computational methods in Chap. 6.