

William E. Blass • George W. Halsey

DECONVOLUTION OF ABSORPTION SPECTRA

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PREFACE

This monograph deals with a rather universal concern—that of signal recovery. Signal recovery is a broad problem that spans numerous disciplines, and as a result there exists a rather rich general literature on the subject. A major problem results from the equally rich sets of technical terminology used in the literature.

Herein the reader will find a specialized aspect of signal recovery, namely deconvolution, discussed in the language of a physical scientist who, by accident or intent, has been crossbred with a sprinkling or more of the geophysicist, computer scientist, electrical engineer, and statistician.

Some readers will find the early chapters overly simplistic; we hope that they will find the later chapters on methods and results more stimulating. Other readers will find the early chapters quite demanding, and we hope that their background in the physical sciences will aid their entry into and advancement along the pathways of systems and signals.

To the extent that it is possible, we have attempted to produce an entry-level monograph for physical scientists which will enable them to begin tentative use of deconvolution methods in their work. Where elegance or a rigorous treatment has in our estimation been in conflict with effective communication, we have eschewed elegance or rigor or both.

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