

Seismic Imaging -- Preface

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These lecture notes cover the *physical* aspects of wave-equation, seismic-data processing. *Statistical* processing methods are just lightly surveyed, for by comparison they seem little changed since the publication in 1976 of *Fundamentals of Geophysical Data Processing*. These lecture notes are the second third of my next intended book. The first (non-consecutive) third is found mostly in SEP-24. These lecture notes are used both at Stanford University and at occasional one week classes given for SEP sponsors.

To the Young

Neither this book nor any other can give an adequate training in reflection seismology. The essence of our science, indeed that of all sciences, is the relationship of theory to data. Only by the struggle of personal experience does it seem to be possible to learn how to evaluate the quality of theory by its relevance to data.

To the Old

The effort of writing (and reading) introductory lecture notes may seem to be tangential to the workday efforts of prospecting and reflection seismic development. But my efforts in writing these lectures have been well rewarded in surprises. The re-examination of familiar assumptions always seems to turn up some which are out of date. Likewise there are always a few old ideas which have become ripe for extension in new ways.

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