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Solutions Manual for Electromechanical Dynamics

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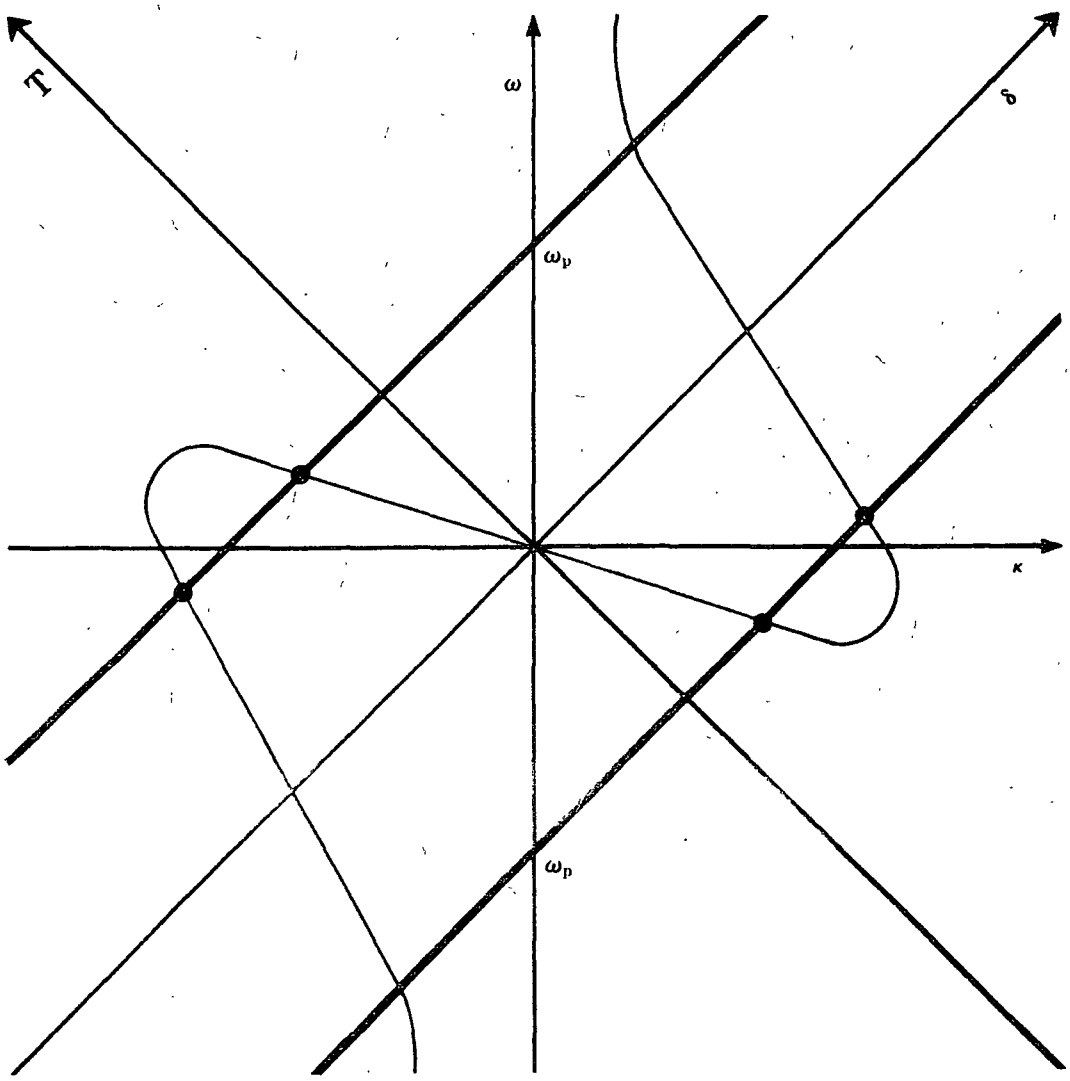
SOLUTIONS MANUAL FOR

ELECTROMECHANICAL DYNAMICS

PART III: Elastic and Fluid Media

HERBERT H. WOODSON JAMES R. MELCHER



Prepared by MARKUS ZAHN

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SOLUTIONS MANUAL FOR

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Part III: Elastic and Fluid Media

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PREFACE TO: SOLUTIONS MANUAL TO

ELECTROMECHANICAL DYNAMICS, PART III:

ELASTIC AND FLUID MEDIA

This manual presents, in an informal format, solutions to the problems found at the ends of chapters in Part III of the book, Electromechanical Dynamics. It is intended as an aid for instructors, and in special circumstances, for use by students. A sufficient amount of explanatory material is included such that the solutions, together with problem statements, are in themselves a teaching aid. They are substantially as found in the records for the undergraduate and graduate courses 6.06, 6.526, and 6.527, as taught at Massachusetts Institute of Technology over a period of several years.

It is difficult to give proper credit to all of those who contributed to these solutions, because the individuals involved range over teaching assistants, instructors, and faculty who have taught the material over a period of more than four years. However, special thanks are due the authors, Professor J. R. Melcher and Professor H. H. Woodson, who gave me the opportunity and incentive to write this manual. This work has greatly increased the value of my graduate education, in addition to giving me the pleasure of working with these two men.

The manuscript was typed by Mrs. Evelyn M. Holmes, whom I especially thank for her sense of humor, advice, patience and expertise which has made this work possible.

Of most value during the course of this work was the understanding of my girl friend, then fiancée, and now my wife, Linda, in spite of the competition for time.

Markus Zahn

Cambridge, Massachusetts
October, 1969