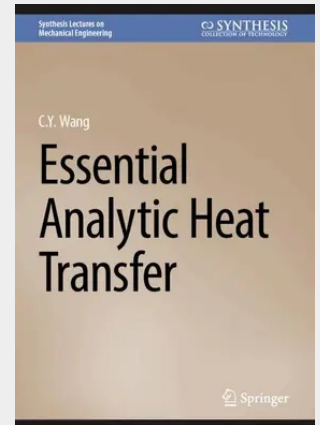


Essential Analytic Heat Transfer

This book discusses heat transfer, which is an important topic in all physical phenomena that involve thermal energy transport. The focus is on the three major means of heat transfer: conduction, convection, and radiation. New materials, methods, and insights are presented that reflect the author's contributions in this area. After many years of experience in teaching and research, Dr. Wang has refined many useful analytic methods to treat thermo-fluid problems. Certain physical truths can only be revealed by analysis, and this book focuses on analytic means to solve heat transfer problems, rather than numerical and experimental methods. Although computer numerical solutions are becoming quite efficient, analytical solutions are still needed for numerical accuracy. This book is written in concise and understandable terms and is useful to practicing scientists and engineers and also serves as an ideal textbook for graduate students. For best results, readers should have completed undergraduate courses in differential equations, introductory heat transfer, and elementary fluid mechanics and should know how to use simple computer library functions such as integration and matrix inversion.

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