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Sommario/riassunto

"Plates and Shells for Smart Structures firstly gives an overview of classical plate and shell theories for piezoelectric elasticity, demonstrating their limitations in static and dynamic analysis with a number of example problems. The authors then go on to explain how these limitations can be overcome with the use of the more advanced models that have been developed in recent years; introducing theories able to consider electromechanical couplings as well as those that provide appropriate interface continuity conditions for both electrical and mechanical variables. They provide both analytical and finite element solutions, thus enabling the reader to compare the strong and weak solutions to problems.Plates and Shells for Smart Structures is accompanied by dedicated software MUL2 that is used to obtain the numerical solutions in the book, allowing the reader to reproduce the examples given in the book as well as to solve other problems of their own"--