1.
Record Nr.	UNINA9910674042303321
Autore	Anastassiu Hristos
Titolo	Numerical and Analytical Methods in Electromagnetics
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 electronic resource (196 p.)
Soggetti	History of engineering & technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Like all branches of physics and engineering, electromagnetics relies on mathematical methods for modeling, simulation, and design procedures in all of its aspects (radiation, propagation, scattering, imaging, etc.). Originally, rigorous analytical techniques were the only machinery available to produce any useful results. In the 1960s and 1970s, emphasis was placed on asymptotic techniques, which produced approximations of the fields for very high frequencies when closed-form solutions were not feasible. Later, when computers demonstrated explosive progress, numerical techniques were utilized to develop approximate results of controllable accuracy for arbitrary geometries. In this Special Issue, the most recent advances in the aforementioned approaches are presented to illustrate the state-of-the-art mathematical techniques in electromagnetics.